DOCUMENT RESUME

ED 028 423 24 AL 001 821

By-Labov, William; And Others

A Study of the Non-Standard English of Negro and Puerto Rican Speakers in New York City. Volume I: Phonological and Grammatical Analysis.

Columbia Univ., New York, N.Y.

Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.
Report No-CRP-3288
Bureau No-BR-5-0545
Pub Date 68
Contract-OEC-6-10-059
Note-397p.
EDRS Price MF-$1.50 HC-$19.95
Descriptors-Adolescents, Adult Characteristics, Age Groups, American English, Contrastive Linguistics, Culture Conflict, Generative Grammar, *Grammar, *Language Research, Language Styles, Middle Class Culture, Negative Forms (Language), Negro Culture, *Negro Dialects, Peer Groups, *Phonology, Plurals, Reading Failure, Rural Urban Differences, Social Differences, Social Values, *Sociolinguistics, Speech, Syntax, Tenl, Urban Youth, Verbal Ability
Identifiers-Harlem, *New York City

This study investigates the structural and functional differences between the non-standard Negro English of northern ghetto areas (NNE) and standard English (SE). The major field work was done in Central Harlem with (1) a geographically random sample of 50 pre-adolescent speakers in Vacation Day Camps, (2) six pre-adolescent and adolescent peer groups in Harlem, studied in individual interviews and group sessions, and (3) a random sample of 100 adults, in a middle-class area and two working-class areas. The linguistic analysis in this volume shows NNE related to SE by differences in low-level rules which have marked effects on surface structure. The -ed suffix, for example, is affected by rules of consonant cluster simplification; systematic variation of such clusters regularly differentiates past tense clusters from stem clusters, and also registers the strong effect of a following vowel in preserving the cluster. NNE is found to have no third singular -s or possessive suffix, but to have an intact plural -s. The absence of the copula is considered the result of regular phonological rules which remove single consonants remaining after contraction. A NNE negative concord rule distributes the underlying negative particle more consistently and to a wider range of environments than in white non-standard English. Repetition tests showed that many NNE speakers understand both NNE and SE forms but produce NNE forms. See AL 001 822 for Volume II. (Author/JD)

ED028423

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

A STUDY OF THE NON-STANDARD ENGLISH OF NEGRO AND PUERTO RICAN SPEAKERS IN NEW YORK CITY

Cooperative Research Project No. 3288

VOLUME I:

Phonological and grammatical analysis

William Labov, Paul Cohen, Clarence Robins
and John Lewis

Columbia University
New York City

1968

The research reported herein was supported by the Cooperative Research Program of the Office of Education, U.S. Department of Health, Education and Welfare.

AL 001 821

PREFACE

to Volume I

The research reported in this volume was carried out under Contract OE 6-10-059 with the Cooperative Research Program of the Office of Education, from July 15, 1965 to September 30, 1967. The aims of the research, as outlined in section 1.3, were to determine (1) differences in the structure of non-standard Negro English [NNE] and standard English [SE], and (2) differences in the ways in which speakers of these dialects use language, with emphasis on the speech events, verbal skills, and social controls which govern the development of the vernacular.

The final report is presented in two volumes. Volume I includes the general discussion of the problem, background and related research (Chapter I); the methods employed (Chapter II); and the first part of the results--analysis of the structural differences in grammar and phonology between NNE and SE (Chapter III). Volume II will present the second part of our results--differences in the uses of NNE and SE. It will include a description of the vernacular culture, and a detailed examination of the social structure of the peer groups studied in Volume I; a description of the main speech events peculiar to NNE and the standards of excellence which the groups endorse; the relation of school performance, and reading, to achievement in this vernacular culture; the subjective evaluation of language differences by the adult community; and overt attitudes towards language. Volume II will also include a more detailed examination of the educational implications of these findings, with certain recommendations for cultural and structural changes within the classroom.

The size of the final report is the main reason for presenting the findings in two volumes. But the break between the structural and functional analysis represents a natural division in the interest of the two sections, and the background needed to follow the argument. Volume I has a great deal of material of interest to linguists and to linguistic theory, using the terminology of generative grammar with certain extensions for dealing with systematic variation. Volume II deals with an area which is much less developed, of interest to linguists, anthropologists, sociologists and educators. No technical background is needed to handle the material, for no formal approach has yet been developed.

The four authors of this report are the major contributors to the research. The writing of the report, the theoretical framework in which it is placed, and much of the linguistic analysis is the work of W. Labov. At the time that the final version of the report was written, it was not possible to consult in detail with the other authors, and there are undoubtedly many errors and inconsistencies which would have been avoided if that had been done. The exploratory work in other cities was carried out by W. Labov, including the studies in Beaufort County, South Carolina.

The largest part of the transcription of the data was the work of Paul Cohen, who also participated in the interviewing program and to an important extent in the linguistic analysis of the results. His contributions are present in all of the definitions of the variable categories and procedures for searching, each of which involves a theoretical decision. The linguistic analyses presented in Chapter III are therefore a joint contribution of W. Labov and P. Cohen, although due to the circumstances in which the final report was prepared, the first named author must take full responsibility for any errors and misconceptions which appear in the present version. Mr. Cohen was also responsible for the work with the white Inwood groups, which give us a basis for comparing white non-standard speech with NNE.

Clarence Robins was a major contributor to the cultural and social conceptions underlying this study from the outset (and the preliminary study CRP 3091). He did the bulk of the interviewing of pre-adolescents, the study of 1390 Fifth Avenue, and the entire series of interviews with adults. The investigations of cultural values within the adult community, and the construction of the adult interview form were molded in large part by Mr. Robins' knowledge of the community and the results of his exploratory interviews.

John Lewis carried out the interviews and particpant-observer work with the adolescent peer groups--the Jets and the Cobras. The other authors of this report cannot overstate their indebtedness to him for the skill with which he conducted this program. It will be obvious to the reader that the group sessions with the Cobras and Jets are the heart of the study: they provide the most important linguistic data in Volume I, and the deepest insights into the functions of language in Volume II. The interviewing methods used are described in detail in Chapter II--essentially, they are designed to approach the ways in which speakers use the language when they are not being observed. In the opinion of the other authors, Mr. Lewis carried interviewing techniques to a high point which had not been achieved in any previous linguistic studies.

Three other persons made important contributions to this report. Joshua Waletzky worked as a research assistant for various periods in the spring and summer of 1965, 1966 and 1967. He participated in the interviewing of the Vacation Day Camp series and the work with the Inwood group. Mr. Waletzky carried out work on the analysis of narrative which will be reported in Volume II. He also made a number of extremely important contributions to the linguistic analysis and the formal framework used, three of which have assumed great importance in this volume: (1) the use of the homograph _read_ to register the subject's semantic interpretation of the -_ed_ suffix in reading (see section 3.2.7); (2) several contributions to the formal treatment of variable rules (2.4.4), with relation to ordering of the constraints and especially the invariance condition as now formulated (2.4.5); (3) the analysis of _i's_, _tha's_ and _wha's_ as assibilation of the stem-final -_t_ rather than _t_-deletion, which resolved many problems of ordering within the sixteen phonological rules (3.4.2, p. 208).

Teresa Labov has carried out a sociological analysis of the internal structure of the Jets and Cobras, which has revised radically our view of these groups (see section 2.1.4). The main body of her work will appear in Volume II, but the results are reflected at many points in this volume in the decisions as to who are group members and who are outside the group (lames); the accuracy of many of the tables in Chapter III has been increased. The discussion of the associative plural _an' 'em_ in 3.3.5 is entirely derived from her detailed analysis of peer group terminology and the way in which members speak of themselves. She has made many other contributions to the work of this project, including the printing of this volume, and it could not have appeared in its present form without her help.

Benji Wald participated in the work of grammatical searching and the analysis of reading problems in the later periods of the research; his contributions to our thinking have become increasingly important as the linguistic analysis reached the form presented here.

ABSTRACT

of Volume I

This study is an investigation of structural and functional differences between the non-standard Negro English of northern ghetto areas [NNE] and the standard English required in the classroom [SE]. Exploratory interviews were carried out in a number of northern cities, but the major field work was in Central Harlem with three main groups of speakers: (1) a geographically random sample of fifty individual pre-adolescent speakers in Vacation Day Camps; (2) six pre-adolescent and adolescent peer groups in South Central Harlem, studied in individual interviews and group sessions; (3) a random sample of one hundred adults, in a middle-class area and the two working-class areas of the peer group studies. In addition, two white peer groups were studied to compare white non-standard English [WNS] with NNE.

The analysis shows NNE related to SE by a number of differences in low-level rules which have marked effects on surface structure: frequently extensions or generalizations of rules found in other English dialects. A number of phonological variables are analyzed, particularly those which intersect with the grammatical system of the auxiliary. The -ed suffix is affected by rules of consonant cluster simplification: systematic variation of such clusters regularly differentiates past tense clusters from stem clusters, and also registers the strong effect of a following vowel in preserving the cluster. The situation of the various -s,z inflections is examined: NNE has no third singular -s or possessive suffix, but has an intact plural -s. The absence of the copula in many environments is the result of regular phonological rules which operate to remove single consonants which remain after contraction.

The negative syntax of NNE shows an extension of the negative concord rule of WNS which distributes the underlying negative particle more consistently and to a wider range of environments. In direct questions, NNE shows some fluctuation in the use of tense inversion, especially with WH- questions. No additional rule operates to re-invert the tense marker and subject in embedded questions.

A series of repetition tests show that many NNE members have an asymmetrical system of perception and production: they understand SE forms but produce NNE forms in response, yet in most cases both understand and produce the NNE forms. Individuals vary greatly in the extent to which they perceive the surface differences between NNE and SE. As a rule, categorical rules of NNE prevent consistent repetition of SE forms, but variable rules have much less effect.

TABLE OF CONTENTS

page

CHAPTER I THE PROBLEM, BACKGROUND, AND RELATED RESEARCH 1

1.0 Location of the problem: economic factors, education and reading 1

1.0.1. The relation of Negro to Puerto Rican and other Spanish-speaking groups. 2

1.0.2. The relation of white lower-class groups to Negro groups. 3

1.1 Structural conflict: preliminary evidence 3

1.1.0. "Non-standard Negro English". 3

1.1.1. The study of "errors" or "deviations". 4

1.1.2. Relation of NNE to Southern speech. 4

Attitudes towards Southern speech. 6

1.1.3. The question of an underlying Creole grammar. 6

1.1.4. Theoretical problems in the study of variation. 8

The direct study of variation. 12

1.1.5. Relation of structural differences to reading. 13

1.2 Functional conflict: the concept and its educational implications 13

1.2.0. The study of the use of language. 13

1.2.1. The relation of language and social factors. 14

1.2.2. Factors controlling speech production. 16

1.2.3. The cultural matrix under study. 18

Lower class culture. 18

Negro sub-culture. 18

1.2.4. Generalized style shifting in NNE. 19

page

1.2.5. The subjective evaluation of language variables 21

1.2.6. Speech events and verbal skills. 22
The analysis of narrative. 22

1.3 Objectives 23

CHAPTER II METHODS 25

2.1 Sampling 25

2.1.1. Exploratory interviews 27

2.1.2. The Vacation Day Camp series. 29

2.1.3. Pre-adolescent groups. 30
The "Thunderbirds". 30
The "Aces". 34

2.1.4. Teen-age peer groups. 34
The "Cobras". 34
The "Jets". 36
Position of the Jets and Cobras in the community. 38
The "Oscar Brothers". 40

2.1.5. White peer groups. 41

2.1.6. Other youth in Central Harlem. Adolescent girls. 41
Pre-pre-adolescents. 42

2.1.7. The random sample of adults. 42
Sampling design. 43
Solitication of interviews. 45
Final sample interviewed and completion rate 45

2.1.8. Other interviews. 45

2.1.9. School records. 47

2.2 Instruments and methods for eliciting data 47

2.2.1. Individual interview procedures. 48

page

The pre-adolescent interview form. 49

The TA-Hip Interview. 49

The interview forms in actual use. 50

Double interviews. 51

Style shifting. 51

Readings. 52

Classroom Correction Tests. 52

Perception Tests. 52

The Adult Interview Form. 53

Subjective Evaluation Tests. 53

Family Background Tests. 56

Group sessions. 57

2.3 Transcription of the data 65

The principle of accountable reporting. 68

2.4 Formal analysis of variation 76

2.4.1. Categorical rules and optionality. 78

2.4.2. Variable input. 79

2.4.3. Variable constraints. 80

2.4.4. Ordering of the variable constraints. 81

2.4.5. The invariance condition. 86

2.5 Types of rules 88

CHAPTER III RESULTS: STRUCTURAL DIFFERENCES BETWEEN NON-STANDARD NEGRO ENGLISH AND STANDARD ENGLISH 91

3.1 Some phonological variables 92

3.1.1. The (th) and (dh) variables. 92

3.1.2. The (R) variables. 99

Inter-vocalic (r). 101

The (r##V) variable. 103

Final and pre-consonantal (r) 103

3.1.3. Merger of (ihr) and (ehr). 107

page

3.1.4. The (ohr) variable. 112

3.1.5. The vocalization of (ɫ). 113
  Phonetic values of the (ɫ) variable. 113
  Internal constraints upon (ɫ). 114
  The distribution of the variants. 116
  Rule for deletion of the lateral glide. 119

3.1.6. The distinction of /i/ and /e/ before nasals. 119

3.1.7. Dropping the g: the (ing) variable. 120

3.2 Simplification of -*t*,*d* clusters; reading the -*ed* suffix 123

3.2.1. Inherent variability and regularity of -*t*,*d* simplification. 125

3.2.2. Principal values of the variable. 125

3.2.3. Variable constraints on (KD). 126
  Effect of a following vowel. 127
  Effect of a preceding morpheme boundary. 127
  Ambiguous cases of -*t*,*d*. 127
  Nature of the preceding consonant. 129
  Clusters versus single stops: the (VD) variable. 129

3.2.4. The special case of -*sK* clusters. 130

3.2.5. The general -*t*,*d* simplification rule. 133

3.2.6. The past tense in NNE. 138

3.2.7. Reading the -*ed* suffix. 139
    Reading the -*ed* suffix and the -*t*,*d* simplification rule. 141
  Comparison with white non-standard speakers 146

3.2.8. Social stratification of (KD) 148

3.2.9. Hypercorrection of -*ed*. 152

3.2.10. The relation of variable rules to linguistic competence. 154

3.3 The -*s*,*z* inflections 158

page

3.3.1. Types of -*s*,*z* finals. 158

3.3.2. General approach to the (Z) variables. 159

3.3.3. Monomorphemic clusters (KZ_{mm}). 160

3.3.4. The plural. 160

3.3.5. The third singular -*s* (Z_v). 164
  Hypercorrection of the plural. 167
  The associative plural *an' 'em* 168

3.3.6. The possessive (Z_{pos}) 169

3.3.7. Adverbial (Z). 171

3.3.8. The adult (Z) patterns. 171

3.3.9. The white Inwood (Z) patterns. 172

3.3.10. The reverse effect of the following vowel. 172

3.4 Deletion, contraction, and inherent variability of the copula 174

3.4.0. Absence of the copula in NNE. 174

3.4.1. Status of the copula in NNE grammar. 176

3.4.2. Grammatical constructions in which forms of of *be* regularly appear in NNE. 177
  The past tense and the negative. 177
  Maintenance of *I'm*. 178
  The case of *i's*, *tha's* and *wha's*. 180
  With modals, infinitives and imperatives. 181
  Yes-no questions. 182
  Clause-final position: ellipsis and embedded questions. 182

3.4.3. Phonological influence on the behavior of *be*. 184

3.4.4. The relation of contraction to deletion. 185
  The rule for contraction of the English auxiliary. 186
  Relations of order between contraction and deletion. 189

3.4.5. Inherent variability of deletion. 190

page

Independence of the preceding and following environments. 197

The effect of a preceding vowel on contraction and deletion. 199

Independence of phonological and grammatical constraints. 205

3.4.6. The rules for contraction and deletion. 205

Form of the contraction and deletion rules. 209

3.4.7. The problem of what I mean... 214

3.4.8. Contraction and deletion of are. 218

3.4.9. Person-number agreement for am, is and are. 220

3.4.10. Effect of the rules on have. 221

3.4.11. The invariant verb be_2. 230

Person-number distribution of be_2. 233

Style shifting of be_2. 235

3.4.12. Effect of phonological rules upon will. 237

Rules for the deletion of will. 239

3.4.13. The social and stylistic stratification of the contraction and deletion rules. 240

Development of phonological conditioning: the effect of a following vowel. 244

3.5 The verbal paradigm 246

3.5.1. Person-number agreement. 246

person-number agreement of was. 249

3.5.2. The regular verb. 250

The future. 250

Routes for the condensation of am going to. 251

The perfect and past perfect. 254

The progressive. 254

The passive. 254

3.5.3. Negative forms. 255

3.5.4. The irregular past. 257

3.5.5. Transfer of finite forms to non-finite positions. 258

page

3.5.6. The modals. 260

Double modals. 260

3.5.7. Quasi-modals. 263

The quasi-modal liketo. 264

The quasi-modal done. 265

3.5.8. Conclusion: the tense transfer rule. 266

3.6 Negative contraction and negative concord 267

3.6.1. The SE negative attraction rule. 268

3.6.2. The WNS extension: negative concord. 272

Transfer to pre-verbal position. 273

3.6.3. The NNE extension of negative concord. 275

Variable sub-sections of the negative concord rule. 278

Other marginal categories. 279

The underlying quantifiers. 280

Realization of the negative as not. 281

3.6.4. Transfer of the negative to pre-verbal positions outside the clause. 281

A comparison of variability and constancy of negative concord in English dialects. 283

3.6.5. Negative inversion. 283

It-deletion vs. negative inversion. 286

Standard negative inversion. 287

3.6.6. General rules for English negative attraction and negative concord. 288

3.7 Questions 291

3.7.1. Yes-no questions. 292

3.7.2. WH- questions. 293

3.7.3. Embedded questions. 296

Yes-no questions. 296

Embedded WH- questions. 299

page

3.8. Some other syntactic variables of NNE. 301

3.8.1. Distribution of dummy *it*. 302
Other dummy elements in NNE. 303

3.8.2. Pleonastic forms. 304
And plus. 304
Or either. 304
Adverbs of place. 304
Approximators. 304
Other adverbs. 305
Only but. 305

3.8.3. Adverbial relatives and adverbial hypostasis. 305

3.8.4. Adverb placement. 307

3.8.5. Specification and approximation. 309

3.9 Memory tests 310

3.9.0. Origin of the tests. 310

3.9.1. The first Thunderbird session. 315
Results. 312

3.9.2. The second Thunderbird session. 315
Results. 317

3.9.3. The Jets memory test. 322

3.9.4. The Inwood group. 330

3.9.5. Morphological tests. 330

3.10 An overview of the relations between NNE and SE, and some educational applications 335

3.10.1. Ways in which SE and NNE are the same. 336

3.10.2. Ways in which NNE extends or generalizes rules as they are found in SE. 338

3.10.3. Ways in which NNE is missing SE elements. 341

3.10.4. Elements in NNE that are missing in SE. 342

3.10.5. The sociolinguistic structure of the NNE community. 342

page

FOOTNOTES 346
  Notes to Chapter I. 346
  Notes to Chapter II. 347
  Notes to Chapter III. 348

APPENDICES 356
  Appendix A: Interview schedules 356
    Q-HAR-AD-IV 357
    Q-HAR-TA-Hip-1 363
  Appendix B 369
    Form letter to adults 369
    Coupon 370

REFERENCES 371

CHAPTER I

THE PROBLEM, BACKGROUND, AND RELATED RESEARCH

1.0. Location of the problem: economic factors, education and reading

The problem upon which this research is focused is one part of the general social and economic situation of the non-white population in the urban ghetto areas of the northern United States: many of the methods, analyses, and findings are related to this broader context. The general social situation has been well-documented for the United States as a whole, and for the specific area of Central Harlem where most of the field work for this project was carried out.[1] The principal groups whose language behavior is studied here match the descriptions of the most depressed and disadvantaged subgroups in other reports.

The low educational achievement of this population is the specific part of the socio-economic problem with which we are concerned. One general index of the educational problem is the relatively low number of non-whites who finish high school.[2] The educational problem is not necessarily central to the over-all economic problem, since, for example, non-whites who graduate from high school show a higher unemployment rate than white drop-outs.[3] Reading problems are clearly central to the over-all educational problem, and the widespread failure of youth in the urban ghetto to learn to read may be an even better index of the relation of education to employment than completion of high school. In New York City schools as a whole, reading level averages two years behind grade. For adolescent Negro youth in South Central Harlem, the averages are considerably lower; and for the specific peer-groups studied intensively in this research, reading may be three, four, or five years behind grade level.[4] For all practical purposes, a great many of these Negro youth cannot use reading for other learning; they are functionally illiterate in the full sense of the term. We will therefore speak of reading failure in this report rather than reading problems or difficulties. Reading appears to be worse for boys than for girls; reading achievement is lower for boys, fewer graduate from high school, and fewer attend college.[5] The sex differential holds for the general population as well, white and non-white: mean reading scores are approximately ten percent lower for boys as compared to girls.[6] Given these facts, we decided to concentrate our efforts on the reading failure of adolescent and pre-adolescent boys.

The research to be discussed here utilizes the techniques of linguistic analysis to elucidate factors involved in reading failure. Some of our findings clearly show that the over-all problem is one of cultural conflict, for which the linguistic data provide us with only one indication. However, linguistic data are overt and accessible; the tools of linguistic analysis are well developed and allow us to make an immediate contribution to the solution of the problem.

We divide the linguistic aspect of the problem into two sharply different areas which require two different modes of analysis. (1) There are differences in the grammatical and phonological rules of standard English and the non-standard English of Negro speakers; in various ways these differences lead to interference in learning to read (and speak) standard English. (2) The vernacular culture of the street differs from the schoolroom culture in its patterns of language use: there are different speech routines and different modes of evaluation; some of the most important speech events in each sub-culture are totally unknown to the other, and different verbal skills are developed and rewarded in each. We will refer to these two areas of interference as structural differences and functional differences. Although functional differences between standard and non-standard seem to us the most important sources of interference, the techniques for analysis in this area are not highly developed; on the other hand, we are able to make precise observations on the interference which springs from structural differences, and our recommendations for educational practice will accordingly be more definite.

1.0.1. The relation of Negro to Puerto Rican and other Spanish-speaking groups. In most of the urban ghetto areas studied, the non-white population consists of two very different groups: Negroes and Puerto Ricans in Northeastern cities, and, in Western cities, Negroes and Mexican-Americans. In this study, we are primarily concerned with the linguistic behavior and structure of the Negro community. But in every Negro adolescent group studied, there are some speakers with Spanish-language background who have become integrated into the group, and in every residential area where the adult population has been surveyed, there are some Spanish-speaking adults in our sample. In our prior studies of delinquent boys in the New York City Youth House, Negro and Puerto Rican adolescents are equally represented. The linguistic and cultural background of the Spanish-speaking groups as a whole are very different from those of the Negro groups; but for the individuals who live in transition areas, or who participate fully in Negro groups, the effect of a Spanish background is considerably less. Many of the same social and economic factors operate on both populations to produce educational and reading problems. In this study, we will be concentrating exclusively upon those factors which are common to the

Negro groups and the Spanish-background individuals associated with them; we will not be dealing with the major part of the Spanish-speaking population which is isolated from the Negro population. However, it will appear that there are sharp differences between the type of linguistic features which are completely absorbed by the Spanish-background individuals, and those which are not. This differential transfer will throw light on the degree of integration of various rules and patterns of behavior in the Negro groups proper.

1.0.2. The relation of white lower-class groups to Negro groups. In most of the Eastern urban ghetto areas studied, there is little contact between non-Puerto Rican white and Negro residents. There are no non-Puerto Rican white members of the adolescent groups studied, and the members do not have white friends (or think it is possible to have white friends). There is contact of course with white merchants; and some contact in school with white students. On the whole, however, the vernacular and reading problems of white society must be studied as a separate but parallel problem. Several of the investigators have extensive background with non-standard white speech, and the Lower East Side survey provides extensive quantitative material for comparison. In addition, one adolescent and one pre-adolescent white group were studied by the same methods as were used with the Negro community. In general, it is extremely important to differentiate those aspects of non-standard Negro English which are identical with non-standard white speech, and those which are different. Otherwise, the relation of such linguistic factors to the reading problem would be obscured.

1.1. Structural conflict: preliminary evidence

1.1.0. "Non-standard Negro English." There is a general, widely-held assumption that a "Negro dialect" exists in the United States. Although this common-sense construct is a stereotype, it has more basis in fact than such stereotypes as "Brooklynese", a reflection of working class New York City speech which in fact shows no marked geographic differentiation. A great deal of "Negro dialect" has appeared in print, and much can be learned about actual speech patterns from a study of the dialect literature. In Northern cities, there are many grammatical forms and lexical items (as well as voice qualifiers and intonation patterns) which are used almost exclusively by Negroes in Northern cities; even in the South there are a number of such features characteristic of Negro speakers. However, the existence of this linguistic entity is often used as a basis for the notion of a "Negro speech" which has a biological or physiological basis--that is, properties of articulation or grammar shared by all Negro speakers irrespective of their geographic or social background. Many people still believe that they can "always tell" if a speaker on the telephone is a Negro. Some of our current research is designed to analyze the ability to identify ethnic characteristics in speech. It will be immediately apparent that there is no "Negro speech" in this absolute sense. It is clear that a relatively uniform set of language features which characterize Negro speakers raised in the Negro community are the products of the social factors which control the development of dialect forms generally.

Our research shows that there is a sub-system of English used by pre-adolescent and adolescent Negro speakers in Northern ghetto areas which is remarkably uniform over the age range 8-17, especially for those who participate fully in the vernacular culture. The grammar of working-class adults, in these areas, is plainly shifted towards standard English rules in many ways and reflects a more thorough knowledge of the underlying forms of SE than adolescent speakers possess. Yet the vernacular of adults is still a separate sub-system, quite distinct from white non-standard in these Northern cities. While we will examine the speech of adults to some extent, the basic object of our investigation is the adolescent vernacular characteristic of the Negro speech community. It will be called non-standard Negro English [NNE].

1.1.1. The study of "errors" or "deviations". One way of assessing the differences between standard English and non-standard English of Negro speakers is to follow the same method as that used by the English teacher--to register the number of "errors" or "deviations" from standard English. Such items as "person-number disagreement, double negative, non-standard preterites," etc., are often used to describe the characteristics of white non-standard English [WNS] which must be corrected in school. A semi-quantitative accounting of such characteristics in the survey of New York City's Lower East Side of 1963-4 was given in our preliminary[7] report (CRP 3091:10). The tables show the number and frequency of such deviations by Negro subjects, which is of such a far higher degree of magnitude than those by white speakers that the concept of "deviation from a standard" becomes useless. It seems much more likely that we are dealing with different rules rather than different degrees of conformity to the same rules.

Loban's findings[8] on "deviations" of Negro children from standard English also show that their language behavior reflects basic differences in grammatical rules which adjust only slowly and uncertainly to the pattern of SE. Unfortunately, we are **not** shown these "deviations" against the background of the total population of utterances in which these forms might have occurred, so that we cannot differentiate regular rules of NNE from variable ones.

1.1.2. Relation of NNE to Southern speech. There is no question that many of the features of non-standard Negro speech are forms quite general in Southern speech, standard and non-standard. The great majority of the phonological and grammatical features discussed in this report are to be found in the South among white speakers as well as Negroes, according to the limited evidence on this point collected in this investigation. However, we lack the specific data on the grammar and phonology of both white and Southern speakers which would enable us to state precisely what the relation is. The great majority of the speakers we have studied in Northern cities are children of Southern migrants or were born in the South themselves; most Negro speakers in New York have relatives in the Eastern Tidewater states; many of our exploratory interviews in Detroit, Cleveland and Chicago are with recent migrants from Mississippi and Alabama; and our extensive work in the Los Angeles area includes many Negro speakers from Texas and Arkansas. One set of exploratory interviews was conducted in Beaufort County, South Carolina,[9] where we found many speakers in remote rural areas who had recently spent time in New York City. There is ample evidence from other studies of the phenomenon of "dialectic swamping" where we observe a large number of Southern characteristics submerging the native Northern Negro pattern: lexical evidence of Southern influence has been studied by McDavid and Austin in Chicago (1966). In our Lower East Side interviews with Negro speakers and in our present series, there is rich data on these patterns of migration: mothers who work in the North and leave children with grandparents; children who spend occasional summers on grandparents' farms; extended returns to the South in family emergencies; placement of Southern children with relatives in Northern cities for better education; and of course, the fundamental pattern of migration to the North for employment.

Despite such precise documentation of the migration pattern itself, our knowledge of the grammar and phonology of Southern English is not sufficient to specify the relations between Northern speech in the urban ghettos and the speech of Southern whites and Negroes. The Linguistic Atlas of the Eastern United States includes some data on Negro informants,[10] but it is cited only briefly in the major publications. The conclusion of the Atlas dialectologists was that Southern Negro speech patterns do not differ significantly from that of the surrounding white community; the Gullah Creole in coastal South Carolina was said to form the only significant exception.

> As far as the speech of uneducated Negroes is concerned, it differs little from that of the illiterate white; that is, it exhibits the same regional and local variations as that of the simple white folk. (Kurath 1949:6)

However, no data was provided to support this statement.

In recent publications, it has been asserted that the speech of Negroes in the South is remarkably uniform as compared to that of white speakers: that Negro speech does not follow the dialect patterns shown in the Linguistic Atlas.[11] Though there has been no documentation of this opposing point of view, we do find in our own work that the basic grammatical patterns of the Negro ghettos is quite uniform in a large number of Northern cities, and we have not located any firm geographic difference in the grammatical rules to be discussed in this report. Many of our informants were born and raised in the South. However, careful studies of grammatical and phonological patterns in Southern areas, comparable in detail to our present investigations, will be required before this can be accepted as the case. It is quite possible that many of the features which differentiate Southern dialects disappear in the contact situations of the Northern cities, and the resulting form, stripped of the differentiating rules, is therefore uniform by default.

Attitudes towards Southern speech. The earlier investigation of social stratification of English in New York City (Labov 1966a) included explorations of the explicit attitudes of the informants towards New York City speech and towards Southern speech. The attitudes of whites and Negroes were strikingly different. While the overwhelming majority of white speakers were strongly negative towards their own speech and New York City vernacular, over half of them felt that Southern speech was attractive. Negro informants regularly reversed this pattern: Northern speech, including New York City dialect, was considered good speech, while Southern speech was the object of strong aversion. (Labov 1966a: 485, 497-8). We can conclude that there are powerful forces operating among Negro speakers in Northern cities to eliminate many of the highly marked features of Southern speech, especially those characteristic of the local white dialect. Recently, the work of Tucker and Lambert in the Tougaloo project showed that the same situation prevails among Negro college students in the South: the most highly regarded speech pattern is the "network" English of Northern radio announcers, while white Southern speech, even that of educated persons, was the object of strong negative feelings. (1967)

1.1.3. The question of an underlying Creole grammar. One view of the differences between Negro and white speech patterns is that they show evidence of fundamentally different systems in their underlying, abstract structure; furthermore, that Negro speech shows effects of an underlying Creole grammar once spoken generally in the South, similar to the Creoles spoken over a large area from Africa to the Gulf Coast. (Stewart 1964). Evidence for this hypothesis is drawn from similarities of grammatical structure between the Creoles and NNE where NNE differs from SE; from the relative uniformity of Negro English in the South, mentioned above; by the difficulty in deriving specifically Negro forms from any British dialect; and by the resistance shown by many of these patterns to replacement by the corresponding SE patterns. Stewart's readings of historical sources have provided some solid evidence for his contention that the speech of Negro field hands in the 18th and 19th centuries, outside of the Gullah area, showed many features of Creole grammar; the absence of copula, possessive -*s*, and of case distinction in pronouns. (Stewart 1967, 1968). The uniform NNE grammar investigated in this study may indeed be the result of convergence toward SE of a much more different grammar with a Creole base.

When we examine the English Creole spoken in Jamaica or Trinidad we see a great deal of evidence for deep-seated differences in grammatical structure. Some of these differences are so sharp that it is unlikely that there can be a continuous transition between the Creole and SE: For example, the form *I work* does not represent the present tense in Trinidadian English, but rather the simple unmarked past. The present tense is the marked form *I does work*. It might seem, at first glance, that NNE shows the influence of the Creole since the unmarked past *I work yesterday* is quite common in the basic vernacular. However, this resemblance is only superficial. The pattern of the irregular verbs, which are few in number but predominant in actual text, shows that NNE has the same basic system of present and past as SE: For the past, we have *I tol'*, *I kep'*, *I saw* or *I seen*, not *I see yesterday*. The present forms are of course *I give*, *I tell*, *I keep*, *I see today*. Thus NNE contrasts with Trinidad (Solomon 1967):

Trinidadian		NNE	
present	past	present	past
I does work	I work	I work	I work
I does give	I give	I give	I gave

The superficial resemblance between the Creole form and NNE is chiefly the result of certain phonological processes operating at the point of phonological-grammatical intersection. It is the suffix -*ed* which has been weakened, rather than the category of the past tense. This situation is repeated in many other areas of the grammar. Such preliminary evidence leads us to believe that the differences between the grammars of SE and NNE are less striking than the surface forms might indicate.

In the background of the issues raised by the Creole hypothesis are broader theoretical questions as to the extent and nature of dialect differences in general, and indeed of differences between languages. Generative grammar tends to minimize such differences, and to emphasize the similarity of phrase structure and high level transformations among languages which are superficially quite dissimilar (Bach 1965). In one of the early Project Literacy conferences, Chomsky suggested that the underlying forms of English are remarkably resistant to change, and that most dialect differences are therefore relatively superficial (1964). A natural consequence of the generative viewpoint is that NNE (and even Jamaican Creole) would be expected to differ from SE chiefly in its surface representation and this point was strongly argued by Rosenbaum at the same conference in opposition to the Creolist viewpoint of Bailey.

The implications of this question for educational practice are not inconsiderable. The strategy needed to teach a fundamentally different phrase structure would be quite different from the strategy for giving practice in the control of phonological rules. In the one case, we might be teaching students that a rule S → NP + NP is contrary to the fundamental SE phrase structure S → NP + VP. In the second case, we might be giving students practice in the control of the contraction rule _is_ → _'s_ without the further rule _'s_ → ∅.

1.1.4. _Theoretical problems in the study of variation_. The data to resolve such abstract questions as those raised in section 1.1.3 must be drawn from the speech community. There are no linguists with a native command of NNE, who operate out of their own heads, and can ask themselves questions about grammaticality in the vernacular. Even if there were such linguists, or it were possible to "train" informants to answer such questions, there are powerful sociolinguistic factors which prevent accurate reporting of NNE forms in such situations. Whenever a non-standard dialect is in contact with a standard dialect, the speakers tend to perceive the standard norms (see chapter 3). In our work with adolescent peer groups, we find, for example, that members report themselves as saying _I don't know whose book it was_, when in fact their speech shows a categorical pattern _I don't know who book it was_. Even if we found someone who did report accurately, we would not know that he was doing so unless we had previously determined the actual pattern of the basic vernacular by studying the language of the community as it was actually being used.

Studies of language in the community immediately encounter a fundamental difficulty: variation. If we are searching for a simple, homogeneous structure of the type which is normally presented in linguistic descriptions, we do not find it. Variation is widespread and seemingly omnipresent in those areas where non-standard differs from standard. If we pick up any accurate transcripts of vernacular speech, we are apt to find such records as this:

> ɒɪ gwɒɪn tɛl ɛm: "yu rɛd dɛwəl! yu z ə rɛd
> dɛwəl!" ɒɪ sɛ, "gɒdz gɒɪn pɪk yu ʌp"; ɑn ɒɪ
> sɛ, "yul nɛwə fɛc ʌntɪl mɪstə mɪcɪ sibrʊk
> brɪŋ yu ɒn dɪ ples fə owəciə. dɛn yu də brɑg,
> bət gɒd gɒɪn pɪk yu ʌp ɑn yu. . ."
>
> --Diana Brown (Turner 1949:260)

The fluctuation in the copula seen here is typical of the variation reported in 3.4 below for NNE--here it appears in a Gullah Creole speaker who may be taken as far more remote from SE than any of the speakers studied in Central Harlem. This variable deletion of a lone ##z## is (13) in 3.4.6.

In general, linguistic theory has not been designed to include variation as a systematic fact, but rather to dispose of it and eliminate it in the final analysis. A great many procedures have been followed for eliminating variation, but they have all been informal and leave considerable room for the analyst to select informally the data to be reported; as a result it has been possible for linguists to find support for almost any viewpoint by proper selection of their data from the material they encounter.

This procedure of selection is not necessarily a conscious one. We find that speakers perceive their language categorically--they tend to perceive themselves as using the norm which they have adopted, rather than their variation from that norm (Labov 1966a:XII). In a slightly different way, many linguists operate on the same principle. If they adopt the view in advance that any variation found in the speech community represents a mixture of the (uniform) standard and (uniform) non-standard, then it is possible for them to decide automatically which of two variant forms represents the non-standard vernacular under study. That which is closer to the standard is set aside as an importation, and the form which is more different from the standard is accepted as the basic vernacular rule. With this orientation, it is possible to focus more and more upon the forms which have already been identified as the vernacular system, and within the informal procedure adopted it is possible that these will be the only ones perceived.

It is possible to report by this means that NNE speakers never use the auxiliary _have_. In the most extreme cases, forms such as _I is_ or even _I'm is_ are reported as characteristic of NNE, when in fact they occur as minor patterns of small frequency. The linguist is thus subject to the same sociolinguistic forces which lead naive subjects to such reports as "he _always_ says _dese_ and _dem_ and _dose_" when in fact no native speaker of English has an invariant rule of this type.

If the theoretical problems associated with NNE are to be investigated by empirical means, and we are to find decisive answers which have a firm support in the data, it will be necessary to satisfy three distinct requirements:

(1) the linguists must be accountable to the data: reports of variable features must be accompanied by accurate statements on the total population of utterances in which these forms might have occurred as well as the number which did occur.

(2) the basic data must be drawn from accurate recording of the vernacular in use, in situations where the social factors which control language production are essentially the same as those which operate in every-day life.

(3) the model of language structure and linguistic rules must be able to incorporate the facts of systematic variation.

Methods for satisfying these requirements are discussed in detail in chapter 2. In the following pages, we will deal briefly with the traditional means of handling variation and the methods for the direct study of variation developed in studies which preceded the present investigation.

When the facts of variation are not neglected entirely, they are frequently set aside as "free variation", or given such labels as "variphones", "social variants", "expressive variants".[12] Such variation is considered outside of linguistic structure proper, a province in which linguistic rules do not operate. The speakers appear to be "saying the same thing" in two different ways, and the speaker's choice appears to the analyst as indeterminate, not subject to the normal constraints of linguistic structure.

Another approach is to define the object of inquiry as an "idiolect": the speech of one person in one situation speaking on one topic for a short time (Bloch 1948). But the data to be presented here shows that the variation to be discussed will be found within the most spontaneous interaction of natural peer groups, within the individual sentences.

> "Make believe this a team and this is a team"
> [12, T-Birds, #365][13].

Even if there were idiolects which could be described with categorical grammars, this would be a very indirect approach to the goal: to write a grammar of the language used by the speech community. We do not concede that language is a property of the individual; it is a property of the community, and our grammars must describe the language which we find in use by the community.

One can also reject variation on principle, invoking the distinction between competence and performance, as Chomsky has done in his well-known position that the object of linguistic inquiry is the competence of an ideal speech community completely free of any kind of variation (Chomsky 1965:3). The facts of variation which we do encounter would then be set aside temporarily as an aspect of "performance", awaiting a science devoted to this area of language behavior alone. The approach we will take is diametrically opposed: it will be demonstrated (in chapter 3, below) that quantitative studies of variation provide the strongest evidence for the analysis of the basic linguistic structures.

Another means of disposing of variation found in the actual data is the notion of "dialect mixture" or "dialect borrowing". There are of course individuals who show the effects of mixed backgrounds, and there are communities with mixed populations, which may be no more than irregular mixtures of dialects. However, the concept of dialect mixture is often used without any empirical demonstration of the existence of homogeneous dialects that are being mixed: it is assumed that such dialects must exist and that the variation found is the needed demonstration. (Bloomfield 1933:362).

The concept of "co-existent systems" introduced under that title by Fries and Pike (1949) attempts to resolve certain heterogeneous aspects of internal structure by setting up simultaneous sub-systems. Studies of Creole systems have utilized this notion, and it has found its fullest development in discussions of multilingualism, diglossia and other linguistic situations where clearly identifiable strata can be identified (Weinreich, Herzog and Labov 1968). One would assume that the identification of these strata must be accompanied by switching rules which state when, where and how the speaker moves from one system to another. The work of Gumperz (1964) and Ervin-Tripp (1968) and others has enlarged our knowledge of the conditions for switching; yet the conditions given so far are still stated informally and are not integrated into the linguistic rules themselves. The notion of diglossia or of co-existent system does not in itself sharpen our understanding of inherent variation within a single system, nor the specific relations between specific linguistic rules which relate dialects. The suggestions of Klima (1964) show how differences in rule ordering can be used to relate a set of homogeneous systems, although it is not clear how a speaker moves from a set of rules with one order to the same set in a different order. Although the informal construction of co-existent systems does focus attention on structural complexity within the speech community, it may be a step backward in the analysis of variation: a rule which shows inherent variation may be resolved into an unpredictable series of switches, within utterances, sentence or clauses, in which each occurrence of a form represents a switch of the speaker into an entirely different system. We also note that the notion of age-grading (Hockett 1950) focuses on an important axis of variation within the community, and empirically may help to identify certain discontinuities within the population; but no conclusive demonstration of discontinuities is possible unless one can first identify and present formally the facts of continuous variation where they occur.

The direct study of variation. The present study continues the line of investigation begun in earlier work on Martha's Vineyard (Labov 1963, 1965a) and New York City (Labov 1964a, 1964b, 1966a, 1966b, 1966c) in which variation is studied directly as an inherent property of linguistic systems. The work of Shuy (1967) and Levine and Crockett (1966) has provided further quantitative data which confirms the principles of sociolinguistic structure developed in this work. Field methods and preliminary analysis which directly preceded the current investigation are discussed in the Final Report to Cooperative Research Project 3091 "A Preliminary Study of the Structure of English Used by Negro and Puerto Rican Speakers in New York City" (Labov, Cohen and Robins 1965; hereafter referred to as 3091). This report serves as an introduction to the methodology of field work and the first approach to quantitative relations in NE: Further reports are given in Labov 1965b, 1966d, 1967, 1968a, 1968b, Labov and Waletzky 1967, Labov and Cohen 1967, Labov and Robins 1968) although the present report includes much of the data in these publications.

In this earlier work, the concept of the linguistic variable (Labov 1966e) was developed and expanded into the more formal notion of a variable rule and variable constraints on rules (2.3 below). These variable conditions are of three types: (1) the variable input for the rule--that is, the initial frequency with which the rule is selected, which may change with age or from dialect to dialect; (2) the variable constraints on this frequency, which provide a spectrum of frequencies under different environments, and which may vary in their internal ordering from time to time. with age, peer group, or dialect; and (3) the extralinguistic (social or stylistic) conditions which affect the frequency of the rule in other ways. It is not assumed, however, that all variation within a geographical area can be subsumed under a single set of rules. SE and NNE are presented here as closely related but distinct, co-existent systems. But the internal structure of each system and their relations cannot be specified without understanding the areas of inherent variability within each. The results of this investigation will allow us to present the relations of these two systems in far greater detail than any previous study of co-existent sub-dialects of the same language.

1.1.5 Relation of structural differences to reading. The principal educational focus of this research is the reading problems of the urban ghetto areas.

In general, one may look for reading difficulty due to structural interference in four areas: (1) If the reader encounters a great many spellings whose forms are unrelated to the phonological structure of his own dialect, he may lose confidence in the alphabetic code and attempt to learn words as whole units. (2) If the reader encounters a number of inflections which have no place in his own language system, the uncertainty generated by such spellings without significance may affect his confidence in the writing system as a whole. (3) If the reader encounters a large number of syntactic forms and idioms which are not in his own dialect, he may have difficulty in deciphering the over-all message of the sentence. (4) If the amount of systematic structural ambiguity between SE and NNE is large enough, then the reader will arrive at the wrong meanings and fail to decipher the intended meaning of the text.

One should not over-state the importance of the structural differences between NNE and SE in impeding reading; on the whole, it does not seem that reading problems of the type (4) follow from such differences. Functional differences in language use appear to be far more important. Nevertheless, the research to be reported here has isolated a number of specific problems in reading, and any specific contributions to reading problems are important in the state of our current knowledge. One would hope to contribute to the problem by showing where particular differences in the rule structure of speakers of NNE lead to particular reading problems--such a finding will serve simultaneously to confirm the rules we have written and to enlarge our understanding of how the child learns to read. We would also like to know how the teachers' knowledge of NNE or ignorance of it can affect the progress of reading instruction. Although our findings are only suggestive in this area, this report will endeavor to reinforce an important concept in the teaching of reading first introduced in Labov 1965b: that the teacher of reading must make the fundamental distinction between differences in pronunciation and genuine mistakes in reading.

1.2 Functional conflict: the concept and its educational implications.

1.2.0 The study of the use of language. The problems outlined in the preceding section deal with structural differences between NNE and SE. Although these are extremely complex and have a special interest for linguistic theory, they represent only one aspect of the differences between the two forms of English, and perhaps not the most important one. It seems likely that differences in the functions or uses of NNE and SE are more extensive and more important as far as reading failure is concerned.

Hymes has pointed out that the traditional linguistic attitude towards the cross-cultural study of language structure and functions are undergoing a radical revision (Hymes 1967). The approach of anthropological linguistics was focused on structural differences, under the assumption that languages can differ from each other to an unlimited degree. At the same time, it was assumed that language was used in more or less the same way, for the same functions, in every culture. The current tendency of generative grammar is to focus on the structural universals which languages share--those aspects of language structure which are invariant from culture to culture. Furthermore, exploratory studies in "the ethnography of speaking" indicate that there are sharp and significant differences in the ways that language is used in different cultures (Hymes 1962). The orientation of this investigation reflects both of these tendencies.

On the one hand, we focus on the relation between NNE and SE structures, rather than simply cataloguing their differences. On the other hand, we wish to investigate specific differences in the use of NNE and SE which have never been reported before.

There are two distinct ways in which we can approach differentiation in the use of language. Both are investigations of the patterns of choice open to the users of the language as determined by the immediate social situation. There are general shifts in the selection of phonological and syntactic forms which can be correlated with an over-all stylistic dimension. We may call this generalized stylistic shifting. In previous studies, the stylistic continuum was sampled along a single dimension: the amount of attention paid to language (Labov 1966a:IV). Location of a speech sample along this dimension is in turn the product of a number of social factors: the relations of speaker and listener, the topic, the broader social situation, the audience, and the social definition of the situation.

A second approach to the use of language is that of outlining rules for specific speech events (Hymes 1962). Rather than approach language behavior as a diffuse, unstructured series of shifts from formal to casual, one can locate particular routines with a high degree of internal structure. "Asking for directions", "introductions", "lectures", "sales talks", "reading aloud" are all examples of such patterned speech events. Not only are the rules for such events culturally specific, but members share a common set of standards for evaluating verbal skills within these events. Previous studies have shown that subjective norms in regard to language variables are much more uniform than language behavior itself, and in fact define the outlines of a speech community. (Labov 1966a:XI). The study of the specific use of language within speech events, and the social evaluation of that use, will yield insights into the patterns of language use within NNE and their relation to educational problems. Research in any of these areas, however, requires a general knowledge of the social factors which control linguistic behavior.

1.2.1. The relation of language and social factors. Earlier sociolinguistic research within speech communities outlined systematic social conditioning of linguistic variation and demonstrated the role of social factors in linguistic change (Labov 1963, 1966a). The manner in which social factors impinge upon abstract linguistic systems was discussed in a review of data on eleven sound changes in progress (Labov 1965a). It has been suggested elsewhere that language and social structure are mutually embedded and that in some sense, linguistic structures are social structures (Grimshaw 1967). However, this position seems to run beyond the available data, and in fact goes counter to the evidence as a whole. The great majority of the rules of English, in so far as we know them, apply to the linguistic behavior of all members of the speech community--they show no variation across classes, ethnic groups, sexes, age levels; indeed, they apply equally well to most dialects of English. It is natural that dialect studies should concentrate upon differences between dialects, but this should not lead us to exaggerate the relatively small area which is variable. Instead of concluding that language structure and social structure are dependent upon each other, it would be sounder to argue that language is the form of social behavior which is the most independent of all other forms.

But to state that language and social structure are largely independent does not minimize the importance of the areas in which they intersect. Every language structure contains variable elements--rules with inherent variability. Some of these represent sound change in progress, others are relatively stable. It is at these points that linguistic variation can take on social significance; and since one area of linguistic variation is normally involved in many correlated variables, there is ample opportunity for social differentiation within a series of variables. Thus in New York City, we find that the closely interrelated set of long and ingliding vowels are all variable and all are correlated to varying degrees with socio-economic, stylistic and ethnic factors. The reverberations of these variable structures are found in the certain upgliding diphthongs as well (Labov 1966a: XIV). But most of the vowels are independent of any such social variation: while one may observe slight fluctuations in the pronunciation of bit, bet, bat, put, and pot in New York City, for example, such variation is independent of the socio-linguistic structures involving beer, bare, bad, sure, shore, boy, buy, and bow. In the consonant system, there are even fewer variables with any social significance.

Furthermore, we find that socially correlated variation can move like a wave through a series of rules, so that in successive or geographically contiguous dialects the area of variation progresses from point to point. Thus those sub-rules in the tensing and raising of /æ/ which vary in the New York metropolitan area are constant in the adjacent regions; in those regions, the change has progressed further, and other sub-rules have begun to vary.

Fischer's studies of sandhi rules on Truk and Ponape (1966) show a categorical opposition which matches the cultural differentiation of the two islands. The two languages and the two cultures appear to have developed recently from a common origin. It seems clear that the differentiation which has resulted in the present opposite and invariant sets of rules stems from a period when the sandhi rules were variable and capable of assuming social and cultural significance. Although Fischer suggests a possible universal affective interpretation of these rules, it seems clear that such an interpretation would apply only when an option is present: only a rule which can be violated can have such values assigned to it.

These observations are consistent with Sturtevant's view (1948) that social significance is assigned to linguistic rules only when they vary throughout the population-- when one group's usage is opposed to another's. When the change goes to completion, and the variation gives way to invariance, correlations with social structure disappear. We can summarize this view by stating that language structure is open to social interpretation only at specific points of variation. Not all linguistic variables take on such social interpretation or show such correlations; for example, the widespread merger of the vowels of cot and caught in the United States seems to be taking place with a minimum of social significance. However, it is always possible for social differentiation to develop in the transition areas and to exert considerable influence upon linguistic developments.[15]

1.2.2. Factors controlling speech production. In order to study language, either in its structure or its function, one must obtain speech. The basic technical problem is to analyze non-standard linguistic structures from behavioral evidence, and in order to obtain this behavioral evidence one must know a great deal about the factors which control speech production. In the course of earlier studies and in the current investigation, we have continually improved our understanding of what social and situational factors will control speech. The fundamental question to be answered, is, of course, "Why does anyone say anything?" More immediate questions cover most of the speech factors listed by Hymes(1962): the influence of the physical setting, the numbers, sizes, ages, and cultural background of the participants, the history of their social relations, and the topic, the code and message used. A great deal of previous research within working-class and Negro communities has given an inaccurate view of the verbal capacities of the members, because the investigators had an inadequate knowledge of these factors.

The technical knowledge required to obtain the data can also become an object of inquiry in itself.

Earlier studies of sociolinguistic structure have been based upon random samples or judgment samples of isolated individuals and their families. To obtain a representative cross-section of the population, such methods are invaluable, but the face-to-face interview itself, with questions and answers, controls the object of investigation. To break through the constraints imposed by the interview, various devices were used with some success to obtain samples of casual speech or spontaneous speech (Labov 1966a: IV). However, such interviews still do not permit direct observation of the social factors which control speech production and influence language. The techniques for studying groups used by Gumperz in Hemnes, Norway (1966) permit one to observe language in use, controlled by the same social networks which operate in everyday situations. The current investigation utilized random samples, but put primary emphasis on the study of natural peer groups which form relatively closed networks. The basic paradigm of operation is discussed below in Chapter II; it allows us to compare for each individual his speech in face-to-face situations with his speech in spontaneous interaction with peers. From the educational viewpoint, there is reason to believe that the constraints imposed by the peer group upon language behavior are a powerful factor in the individual's failure to read, write, and speak SE. One of the basic tasks of this investigation, then, is to see exactly how the peer group affects language production, in what way, and what are the positive and negative effects exerted by peer group pressures. It is possible that some (but not all) of the social factors which promote speech within the peer group can be utilized within the educational system.

Participant-observer work in urban ghetto areas requires more than a knowledge of such general principles as are indicated above. Specific knowledge of the culture is needed, and furthermore, detailed knowledge of the local situation. In general, success in contacting, assembling, and studying natural peer groups depends upon the use of members' knowledge--that is, the kind of extra-linguistic and linguistic behavior which is available only to members of the subculture. One can use this knowledge, as we have done, to produce and control the linguistic data--and also study it as an object in itself.

1.2.3. The cultural matrix under study. Studies of the functions of language relate linguistic behavior directly to a social or cultural context. In studying generalized style shifting and in the study of speech events, it is necessary to study specifically the cultures we are dealing with. Generalized style shifting can be studied with minimal reference to specific sub-cultures. But the study of specific speech events requires careful inquiry into the particular cultural matrix in which each event is located. In this study we will be dealing primarily with two intersecting but distinct patterns, which we may call "lower-class culture" and "Negro sub-culture".

Lower-class culture. The basic vernacular to be studied in this research is used by those adolescent peer-groups who are wholly involved in lower-class culture, in the sense outlined by Walter B. Miller (1958). Although the definition of the values or focuses given by Miller are informal, they seem persuasive to those familiar with the forms of behavior in both white and Negro society. The cultural foci given by Miller are important in our own work: (a) smartness, (b) trouble, (c) toughness, (d) violence, (e) kicks or excitement, (f) fate, (g) autonomy or freedom. Speech events revolving around these foci appear again and again as central points in the spontaneous interactions of the groups we deal with, and one of the problems of this research is to show how such values influence and constrain the use of language. The term "lower class" does not mean here that the forms of behavior are confined to boys from lower-class homes. On the contrary, the base of this cultural form is quite broad in early adolescence, and influences almost all boys in the urban ghettos (and a great many in the suburbs). The number who participate fully in this culture drops off sharply with age.

Negro sub-culture. The particular sub-culture we are studying here is differentiated from white lower-class culture by a large number of specific cultural patterns. There is no question but that the reading problems of the Negro and Puerto Rican population in the urban ghettos are more severe than in other lower-class groups. The ways in which specific cultural characteristics of the Negro culture affect the use of language are to be studied here. One principal means is to investigate the areas of verbal skill which are highly evaluated and developed within the Negro society. No sharp contrast with the Puerto Rican group will be attempted: the Puerto Ricans studied in this report participate in Negro sub-culture to varying degrces, rather than in an integral Puerto Rican sub-culture. It will be possible to make some comparisons of these cultural features across a number of ghetto areas in Northern cities, just as in the case of structural factors, and obtain some estimation of the extent and importance of local differentiation. The groups studied are isolated from white society; in no case are there any non-Puerto Rican members of any group who are white. We can contrast the behavior of the Negro groups studied with two working-class white groups--a pre-adolescent and an adolescent group--chosen from an area of Manhattan which shows relatively low Negro influence on the white population.

One aspect of Negro culture of considerable importance for linguistic behavior is black nationalist ideology. With increasing emphasis on independence and ethnic pride for black people, one might expect a radical change in attitudes towards language. One important aim of this study is then to determine the relationship of black nationalist ideology to dialect differentiation, style shifting, and linguistic norms. One of the major peer groups studied was under strong nationalist influence at the outset of our contact with them, and in the course of two years' observation became increasingly dominated by the nationalist outlook in attitude and behavior. Membership in the Nation of Islam involved participation in its complex ideology and mythology, sets of food taboos, and a number of specific speech events not known to the general population. In the spring of 1966, the group's ideology would no longer permit contact with any group such as our own which included whites, and contact was broken off, although some contact was re-established later.

1.2.4. Generalized style shifting in NNE. In the present study, we will concentrate upon the form of NNE spoken by pre-adolescent and adolescent Negro boys on the one hand, and adults on the other. Within the peer groups themselves, we can expect a great many invariant rules which are characteristic of NNE as opposed to SE; when we move from boys to adults, the contrast of NNE and SE becomes sharper (and more clearly defined in subjective evaluation tests, see 4.6), and we would therefore expect that some of these invariant rules would become variable and take on social significance.

The adolescent population of the urban ghettos is not uniform; some are more dominated by lower-class culture than others, and some are more influenced by family, school, and the values of middle-class society. Furthermore, all of the boys concerned use language in a variety of social settings--in spontaneous interaction with their peers, in face-to-face conversation with adults, in school and other formal situations. The fundamental socio-linguistic problem, then, is not only to outline the structural contrasts of NNE and SE as discussed in 1.2 above, but to show how the vernacular responds to various social factors in different ways among various sub-groups of the population. In accordance with the discussion given above, one would not expect all of the rules of NNE to vary under social pressures, since some are relatively invariant. From the standpoint of English as a whole, any rule of NNE which differs from SE is a variable; but within the relatively stable grammar of NNE, some rules are variable and others are constant, and it is the former which show social influence more readily.

To study generalized style shifting, we can focus on a linguistic variable common to both WNS and NNE, such as the interdental fricatives, and see whether the variable shifts at the same rate for various age and peer groups with a comparable change of stylistic context. Or one can take a specific NNE variable--the deletion of _is_--and study its variation from one context to another. By this means, one can find behavioral evidence for the speaker's recognition of norms of correctness or explicitness, internal or external to NNE. Studies of such generalized style shifting enable one to answer many specific questions of great importance to educational tactics: (1) does the speaker recognize in his linguistic behavior an exterior standard of correctness? (2) do some speakers show a rate of style shift greater or less than groups of the same age in other sub-groups? (3) do the speakers show a tendency to hyper-correct behavior--do they go beyond the target model, either in lexical distribution of the variable or in the extent of shifting? In studies of New York City speech in general, it was found that various socio-economic groups were sharply differentiated by answers to these questions. Lower-class white speakers, for example, showed little or no evidence of recognizing an exterior standard of correctness, while lower middle-class speakers characteristically displayed hypercorrect patterns. Such behavioral differences would imply very different educational policies in dealing with the two groups.

1.2.5 *The subjective evaluation of language variables*. The regular patterns of generalized style shifting discussed above reflect a set of relatively uniform values about speech which are held by members of the speech community with a surprising degree of uniformity. In earlier studies, it was shown that members of the New York City speech community reacted unconsciously to specific linguistic variables in a manner that reflected uniform definitions of correctness with extraordinary regularity even though their actual use of these variables showed sharp social stratification. (Labov 1966a: XI). Such subjective reaction tests were made on a scale of occupational suitability of speech which reflected only one value system: the dimension of middle class values. In fact, the more a given sub-group used a stigmatized feature in spontaneous speech, the more likely they were to down-grade others for the use of it. The work of Lambert and his associates (1967) measuring subjective attitudes toward dialects as a whole on a wide range of values showed the same uniformity: both English- and French-Canadians share the same negative set of attitudes about the use of French as opposed to the use of English. In order to explain the constraints on linguistic behavior in the ghetto areas, it would be desirable to focus on some of the subjective correlates of the structural variables characteristic of NNE, not merely on one dimension of middle class values, but along several dimensions--including such lower class values as toughness, smartness, and specific values drawn from Negro society in the ghetto. In order to understand how social and cultural factors control the use of language in this community, it will be crucial to determine how social values are distributed among specific linguistic variables.

The development of nationalist ideology in Harlem and other ghetto areas raises the question as to how nationalism affects the norms for linguistic behavior. In other studies, it has appeared that linguistic norms are relatively stable and independent, free from the effects of revolutions in other value systems which accompany rapid social change. Tucker and Lambert (1967) found that Negro college students at Tougaloo College, Mississippi, had most positive attitudes towards the SE of the broadcast media, and most negative attitudes towards the regional white speech, educated or uneducated. General questions about speech in the earlier New York City interviews showed that the same attitudes were characteristic of Negro speakers in New York City: in particular, Negroes reversed the white attitude, which was extremely negative towards New York City vernacular and reasonably favorable towards Southern white speech; the Negro subjects favored any Northern form, including New York City vernacular, and were very hostile towards Southern white speech.

Subjective reaction tests of the type mentioned above are not the only means of registering the evaluation of speech.

It is also possible to simulate classroom situations and see whether subjects can identify NNE forms in print (see Classroom Correction tests, 4.5); conversely, one can see if speakers have the competence to detect SE forms in an NNE context, and correct the standard to the vernacular (see Vernacular Correction test, 4.5).

In addition to the basic methods of measuring generalized style shifting and unconscious subjective evaluation, there are many unique and anecdotal events which illustrate the values accorded to speech systems. Some such events involving NNE are presented in "Stages in the Acquisition of Standard English" (Labov 1964b); one of the aims of the present studies of the use of language will be to report such unique events. Finally, we can look to our speakers' direct comments on the values accorded to speech, in answers to such questions as "Did you ever try to learn different ways of rapping?" (section 4.8). A small number of members have the ability to express these values clearly, concisely and directly: in some ways their statements are more effective than any controlled and universal test. It is of considerable significance for educators that most of these spokesmen for the vernacular culture are many years behind in school and are considered essentially unteachable or even non-verbal by teachers.

1.2.6. Speech events and verbal skills. The basic means of studying the use of language is to isolate specific speech events--structured occasions in which the use of language is governed by specific (though implicit) rules (Hymes 1962). Negro sub-culture provides us with a number of such highly structured speech events which play an important part in day-to-day interaction, and exist in only rudimentary form in white society: e.g., *sounding*, a system of ritual insults; *singing* (obligatory for Negro groups); *rifting*, a means of demonstrating occult knowledge; *toasts*, the long rhymed poems of Negro folk lore which reflect lower-class culture in a heroic mold; and a number of others considered in 4.2. The development of verbal skills within these speech events, highly evaluated by group members, is not at all uniform from group to group among individuals. It can be contrasted with the middle-class stress on reading considered as a verbal skill; the relation between skill in vernacular speech events and skill in reading and other school events will be an important object of this investigation.

The analysis of narrative. The most complete analysis of the use of language within this study is in the study of oral versions of personal experience. A preliminary structural analysis of narrative has already appeared (Labov and Waletzky 1967); in this report, we will inquire more deeply into the relationship between syntactic complexity and the development and use of complex syntax within narrative, as well as the development of narrative skills.

1.3 Objectives

The objectives of the present study are to describe the most important structural differences between SE and NNE. We will not attempt to describe in great detail all of the lexical and phonological differences, but rather concentrate upon [1] a set of interrelated phonological processes in NNE which intersect with syntactic and morphological rules: and [2] those productive syntactic processes in NNE which result in systematic changes in the surface structure. Reading problems do not necessarily stem from the fundamental differences in the phrase structures and semantic systems of SE and NNE, but rather from the ways in which the same meanings are encoded in different superficial forms. Such surface differences are by no means unimportant because they are superficial: in some ways they pose more difficult problems for the NNE reader and interpreter than for speakers of foreign languages. The Puerto Rican members of the NNE groups yield some insight into this contrast.

It is not proposed that the most serious problems of the NNE reader stem from a mechanical mismatching. The interaction between SE teacher and NNE speaker appears to be a major source of difficulty: this study will also outline ways in which knowledge or ignorance of NNE by the teacher affects the teaching of reading.

The second set of objectives of this study are the differences in the use of SE and NNE. Whereas the uses to which SE is put in the schoolroom are reasonably well known, there is little knowledge of the speech events, verbal skills and social controls of speech which govern the development of NNE: This study will attempt to replace the notion of the "verbally deprived" child in the ghetto with a better estimation of the rich and varied verbal culture which Negro children acquire in the urban ghetto. An account of the striking differences between the spectra of speech uses will help to show the full extent of the cultural problems which lie behind reading failure.

This study will also outline the sets of unconscious norms in regard to language which prevail in the adult speech community, and the ways in which style shifting within the Negro community reflects these values. The linguistic correlates of the sharp social stratification of the Negro community will be explored.

In general, the over-all objective of this study is to portray the relations between a superordinate and a subordinate dialect of English. In both of these community dialects, we find rules with inherent variability, and patterns of class and style shifting which require more sophisticated theoretical apparatus than the categorial rules of traditional grammars can provide. The fact that both grammars show variation does not mean that SE and NNE elements are freely interchangeable: they are closely related but distinct sub-systems. Attempts of teachers to deal with individual items of NNE have generally failed: we have every reason to believe that we are dealing with a system in equilibrium which cannot be easily changed by pressure on any one point. Knowledge of the system as a whole is required as a first step in any educational program.

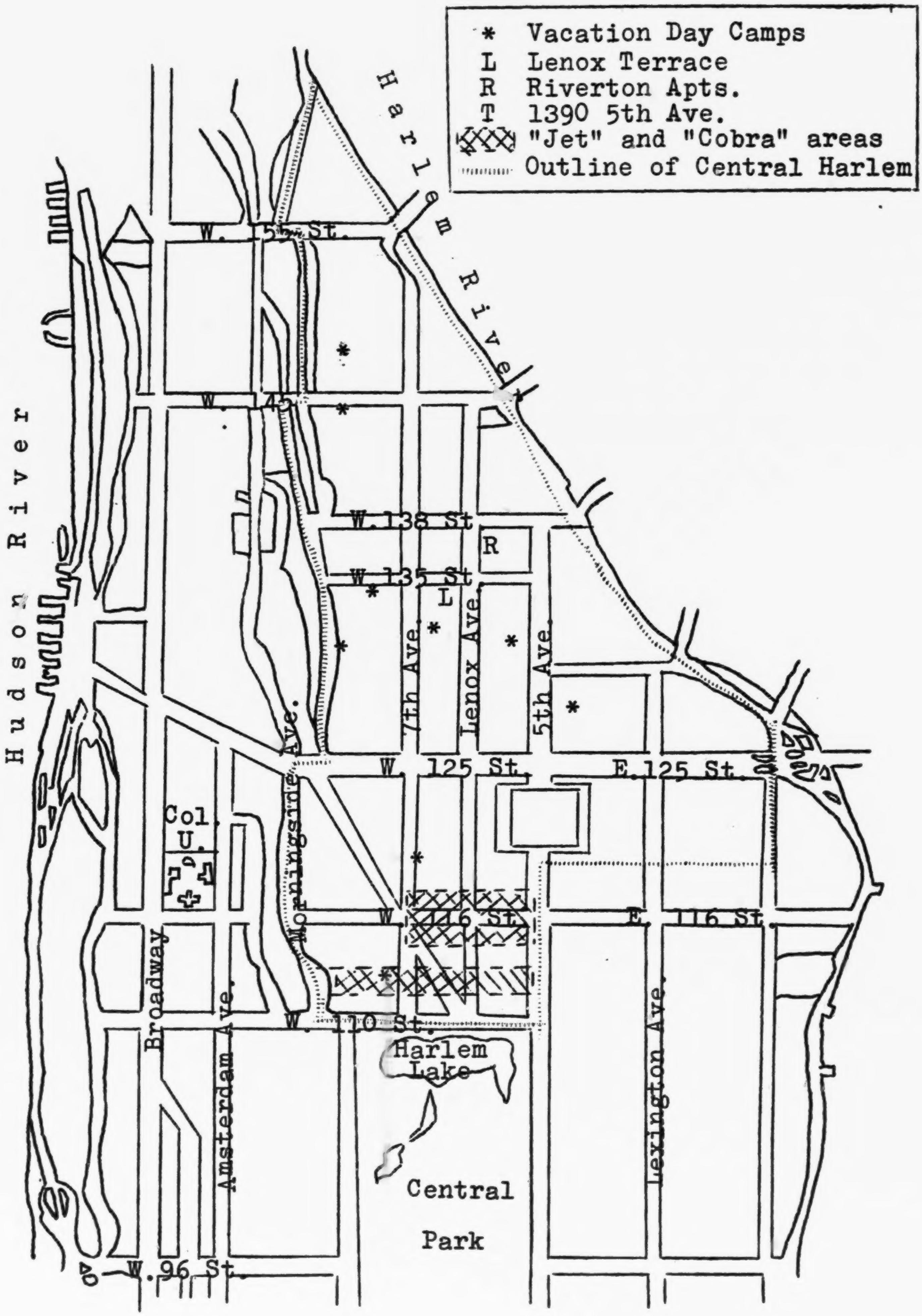
CHAPTER II

METHODS

This chapter will deal with the methods used for sampling (2.1)--selecting subjects whose linguistic behavior is representative of the use of language in the urban ghetto areas; for elicitation (2.2)--obtaining data from subjects which show their full range of speech behavior, in perception and production, their values and norms in regard to language, their verbal skills in the use of language in normal social context, as well as data on their personal histories, peer group relations, family situation, and social attitudes outside of language; for analysis (2.3)--coding and transcribing the data, correlating linguistic and extra-linguistic factors, and integrating the facts on linguistic and social variation into a coherent set of linguistic rules which embody categorical and variable relations.

2.1. Sampling. The objective of this investigation is to describe the grammar of a speech community, not of a series of individuals. The speech community which is the main target is Central Harlem--the area outlined in Figure 2-1; the population of 200,000 people is 97°/o Negro. The only other group of speakers of any size within the community is a smaller number of Puerto Ricans who participate to some degree in the cultural and linguistic system of the Negro people. Within that community, we are primarily interested in the vernacular used in casual and spontaneous interaction, for two reasons: first, since previous research has shown that this vernacular shows the most systematic aspect of the linguistic pattern, as opposed to more formal styles; second, because this is the vernacular used by the adolescent youth who are having the greatest problems in reading. (Whether or not the vernacular in its fully developed adolescent form is identical with that used by 6-7 year olds when they first learn to read is at present an unresolved issue.) The subpopulation of greatest interest will be Negro boys from 10 to 17 years old in working-class and lower-class areas. The linguistic behavior of this group will be viewed against a background provided by a random survey of 100 Negro adults from middle class and working class areas, delineating the sociolinguistic structure of the adult community, and of course the general sociolinguistic structure of New York City as a whole as developed in previous studies. The relation of this central population of Negro boys to other populations will be explored in a series of smaller, less systematic studies which include: the linguistic behavior of younger boys, 7-9 years old; adolescent girls; Puerto Rican members of Negro

Figure 2-1. Central Harlem.


* Vacation Day Camps
L Lenox Terrace
R Riverton Apts.
T 1390 5th Ave.
"Jet" and "Cobra" areas
Outline of Central Harlem
Harlem River
Hudson River
W. 5 St.
W. 45
W. 138 St
R
W. 135 St.
L
7th Ave.
Lenox Ave.
5th Ave.
Morningside Ave.
W. 125 St.
E. 125 St.
Col. U.
W. 116 St.
E. 116 St.
Broadway
Amsterdam Ave.
W. 110 St.
Harlem Lake
Central Park
Lexington Ave.
W. 96 St.

peer groups; isolated boys who do not participate in the vernacular culture; groups of white boys of similar age and background; and speakers from similar areas in other cities: Philadelphia, Cleveland, Detroit, Chicago, and Venice, California. These auxiliary studies will make it possible to estimate the generality of our findings, and the extent to which they apply to the problem of reading failure in other areas.

The logic behind this order of sampling may be sketched as follows. First it was necessary to deepen and broaden our knowledge of the language and sub-culture of Central Harlem, and build up a library of recordings to be used for subjective reaction tests. Second, we had to establish a base for studying adolescent peer groups in their natural setting. Third, we had to move away from peer-groups operating under adult influence to those most removed from the influence of adults, and maintain long-term contact with participant-observer techniques. Finally, we wished to utilize our acquired knowledge of the vernacular culture in order to obtain the widest range of response from adults in a systematic random survey of individuals.

In the course of this investigation, including both CRP 3091 and 3288, 388 individuals were interviewed, and 34 group sessions were recorded. The quantitative distribution of these interviews is given in Table 2-1.

2.1.1 Exploratory interviews. The series of exploratory interviews shown in Table 2-1 began with an adult series which was continued throughout the other studies for approximately 12 months until a finished adult interview form Q-HAR-Ad-IV (Appendix A) was constructed. These exploratory interviews were generally scattered throughout Central Harlem. They included four individuals who were considered outstanding in their verbal skills, in narration and in toasts (Chapter 4). A total of 37 adults were included in this series which utilized various early stages of Q-HAR-Ad.

Exploratory interviews with pre-adolescent individuals were conducted at the same time in various areas of Central Harlem, especially the working class of Morningside Avenue (see Figure 2-1) leading to the development of Q-HAR-PA-III. This exploratory series overlapped the random sample in Vacation Day Camps. In addition, five groups were studied and techniques were developed which were later utilized with the Thunderbirds and other peer groups. A smaller number of teen-age interviews were carried out in recreation centers and other locations, but the Q-HAR-TA forms were not fully developed until the peer-group studies themselves were well under way.

TABLE 2-1

INDIVIDUALS AND GROUPS INTERVIEWED FOR CRP 3288

Exploratory	New York City			Other cities		TOTAL
	PA	TA	Ad	NNE	WNS	
Single	13	5	37	21	21	97
Groups	6			7	2	15

Pre-Adolescent [PA]		A r e a and environs										
		1390 5th Ave.					116th St.		112th St.		Inwood	
	Vacation Day Camp	T-Birds	Lames	Aces	PrePA	Milb.	Cobras	Lames	Jets	Lames	———	
Single	50	16	9	4	8	5	4			5	5	106
Group sessions		4		1	1						1	7

Adolescent [TA]	Oscar Bros.						
Single	9	16	3	34	18	5	85
Group sessions	2	4		5		1	12

Adults [Ad]	Lenox Terrace	Riverton	116th St.	112th St.	
	10	10	40	40	100

TOTAL INDIVIDUALS	388
TOTAL GROUP SESSIONS	34

Interviews were conducted by the principal investigator in a number of other cities. Although the selection of informants was not systematic, the procedure was to locate a low-income ghetto area comparable to Harlem, and to interview several adolescent and pre-adolescent individuals and groups. Several white working class groups were also interviewed in most cities.

In this manner, data was obtained in ghetto areas of Philadelphia, Cleveland, Detroit and Chicago. One area of South Carolina was selected for more extensive study, since the largest number of individuals encountered from any one community was from the Sea Island area of South Carolina. An extended visit to Beaufort County and St. Helena Island in 1966 yielded interviews with three Negro adolescents and four Negro adults, two Negro groups, and four white informants as well.

Interviews in other Northern cities provide a useful contrast since the speakers come from very different areas of the South. For example, the subjects in Cleveland, Detroit and Chicago were primarily from Alabama, a number of those in Chicago were first or second generation migrants from Missippippi. In Venice, California, many of the Negro speakers were first or second generation migrants from Missouri, Arkansas, Oklahoma and Texas. We are thus able to make some informal estimate of the following questions:

(1) how uniform is NNE from one Northern city to another?

(2) which regional features of various Southern dialects survive in Northern Ghettos?

(3) what aspects of NNE are due to the influence of the local Northern dialect?

(4) which rules of NNE are most subject to change from the influence of the local white dialect?

For a comparable set of contrasts with Puerto Rican speakers, interviews were carried out in Vineland, New Jersey, with two groups of Puerto Rican adolescents who were first and second generation migrants from Puerto Rico. Since these groups were influenced only by the local r-pronouncing Midland dialect and not by the New York City vernacular, they formed a useful contrast with the New York City Puerto Rican speakers.

2.1.2 The Vacation Day Camp series. In the summer of 1965, permission was obtained from the New York City Board of Education to interview boys in the **Vacation** Day Camps" [VDC]; these were recreation centers set up in various school yards throughout the city, with games and outside trips for boys enrolled. This series was used to generate a geographically random sample of pre-adolescent boys in Central Harlem to determine:

(1) the constant and variable characteristics of NNE

(2) any obvious geographic variation within Central Harlem

(3) reading skills among pre-adolescents

(4) ability to perceive standard distinctions in phonology and grammar.

The location of the day camps is indicated on Figure 2-1. Each camp was weighted according to the population serviced (calculated on number of blocks of tenement areas or low-income projects) and a total of 50 boys were interviewed at the schools.

Only a part of the linguistic data from the VDC interviews was utilized; however, the entire sample provides information on perception through the PT tests and a number served as a group contrasting with the vernacular peer groups discussed below. Such contrast was possible and enhanced through several biases which were built into the selection of VDC subjects:

1. With a few exceptions, the boys had to be enrolled in the VDC program by their parents; therefore only boys with favorable home environments were selected.

2. The boys interviewed at each center were selected randomly; those chosen were not involved at the time in any group activity. They therefore tended to be drawn from more isolated and semi-isolated individuals than those participating fully in peer groups.

3. The day camps were an adult-organized activity, run by the school system, and boys who showed most antagonism to this system were less apt to be present. This bias operates through two mechanisms: some boys are banned from the centers for undisciplined or disruptive behavior, and others avoid them, preferring other activities.

4. The day camps provided a social setting which favored careful style, as typically employed in face-to-face interaction with an adult; the various devices utilized to obtain casual and spontaneous speech were therefore only partially effective. The fact that the interviews were often held in a school room made this effect a very strong one.

Some of the VDC subjects later turned up as members of the peer groups studied, but the majority of them did not appear to be full participants in the street culture.

2.1.3 Pre-adolescent groups. The next step taken in approaching the NNE peer group and its use of the basic vernacular was to study a particular recreation center in detail. For longer-term observation, it was decided to work in a permanent recreation center outside of the school system. The Children's Aid Society operates two such centers: Stephen Foster at 1390 Fifth Avenue, and Dunlevy Milbank at 32 West 118th Street. In 1965-6, we carried out an extended series of interviews and observations at Stephen Foster, and a smaller number at Dunlevy Milbank.1/

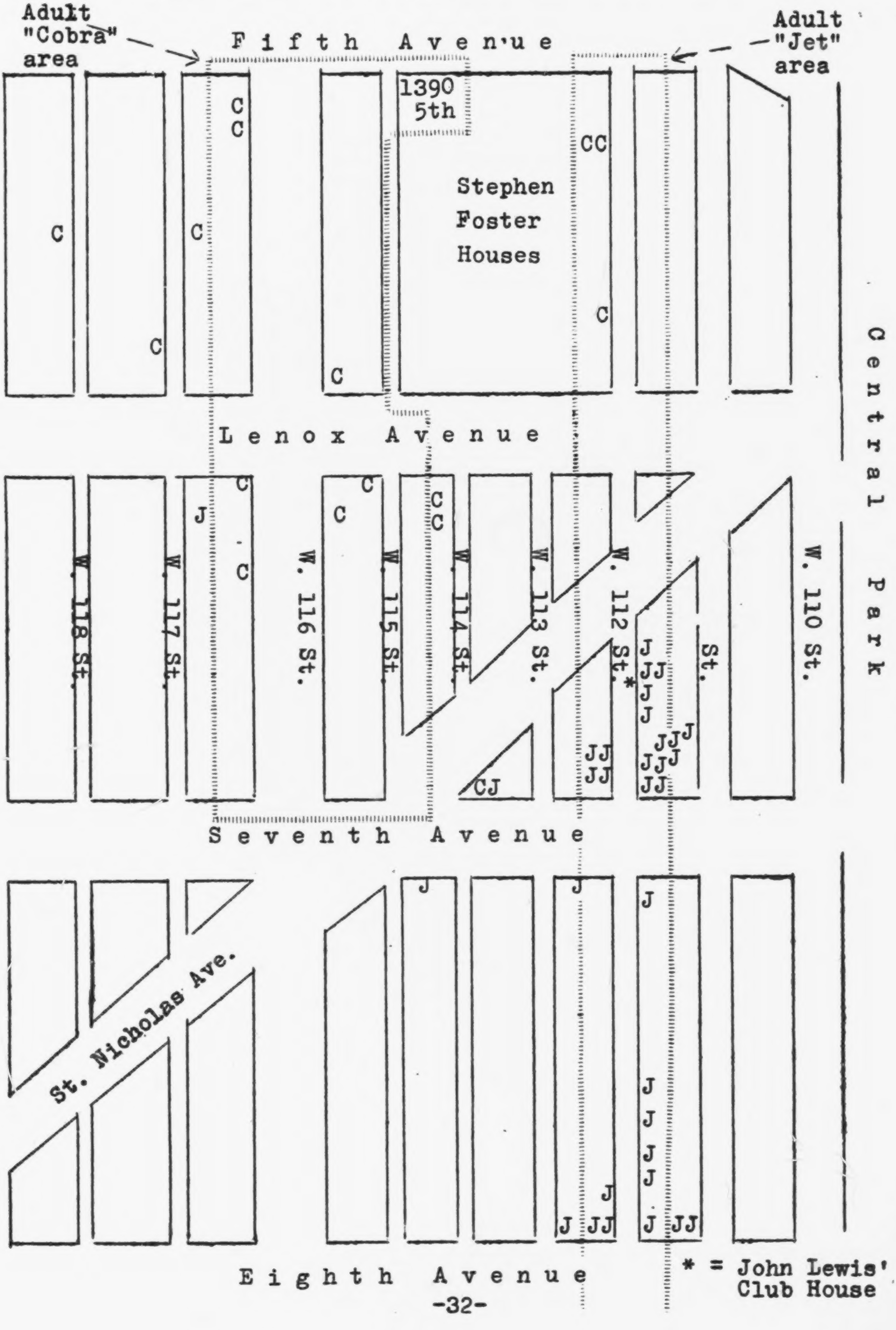
The "Thunderbirds". In the initial series of discussions and interviews, we located one major peer group at the Stephen Foster Center, and began to study it using the "S-G-S" paradigm. The procedure followed consists of three basic steps: (1) locating a few members of the group, including the leaders, and interviewing them in single face-to-face sessions; (2) becoming acquainted with the group in outings and then holding several group sessions with multi-track recording; (3) finally holding single interviews with all others who were present at the group session.

This first group studied will be referred to throughout this report as the "Thunder-birds" or "T-Birds". It consisted of 18 boys 9 to 13 years old, including one Puerto Rican boy. The "Thunder-birds" is merely one of the names which were the successive formal transformations the group went through under the influence of the Center staff.

When we speak of "members" of the group, we mean the members of the peer-group structure formed by the daily activities of the boys, and delineated most clearly by hang-out patterns. (For the detailed structure of the T-Birds, see 4.1 below). Although the center imposed some structure on the group, the leadership and membership was partly independent of the center: some members were banned from the center for bad behavior, and of the two co-equal leaders, only one was officially recognized as an officer at any one time.

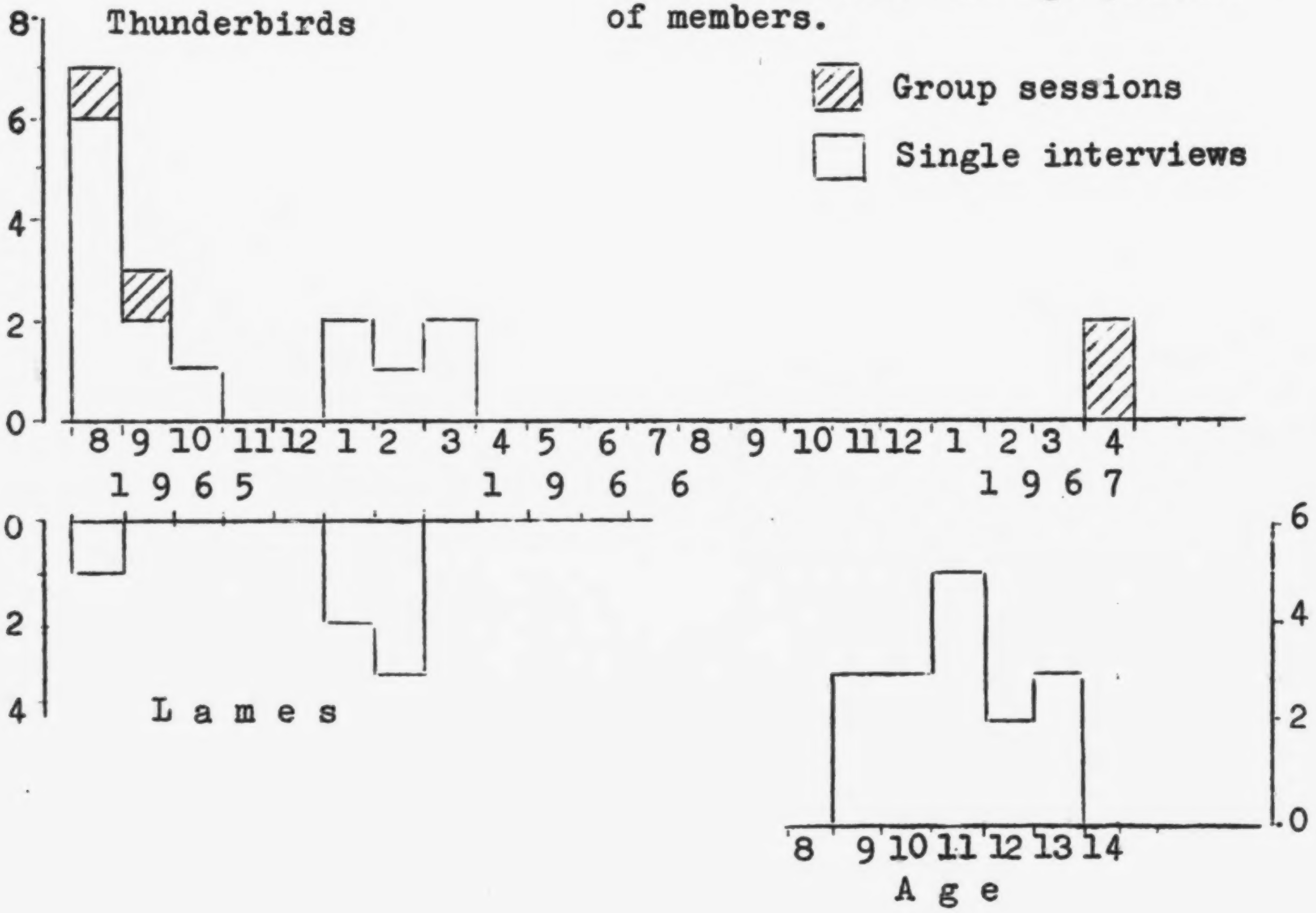
We completed the S-G-S paradigm with the T-Birds between August 1965 and February 1966. Figure 2-3 shows graphically the age range and history of our contacts with the group. In the fall of 1965, we endeavored to place the T-Birds against the over-all population from which the members were chosen. The entire population of the 13-story low-income project apartment was enumerated: names and ages of all children living in each apartment were obtained.[2] Table 2-2

Figure 2-2. The Cobra and Jet territories.


Adult "Cobra" area
Fifth Avenue
Adult "Jet" area
1390 5th
Stephen Foster Houses
Lenox Avenue
Seventh Avenue
Eighth Avenue
St. Nicholas Ave.
Central Park
W. 118 St.
W. 117 St.
W. 116 St.
W. 115 St.
W. 114 St.
W. 113 St.
W. 112 St.
St.
W. 110 St.
C
J
CJ

* = John Lewis' Club House

Figure 2-3. Contact with Thunderbirds over time and age profile of members.



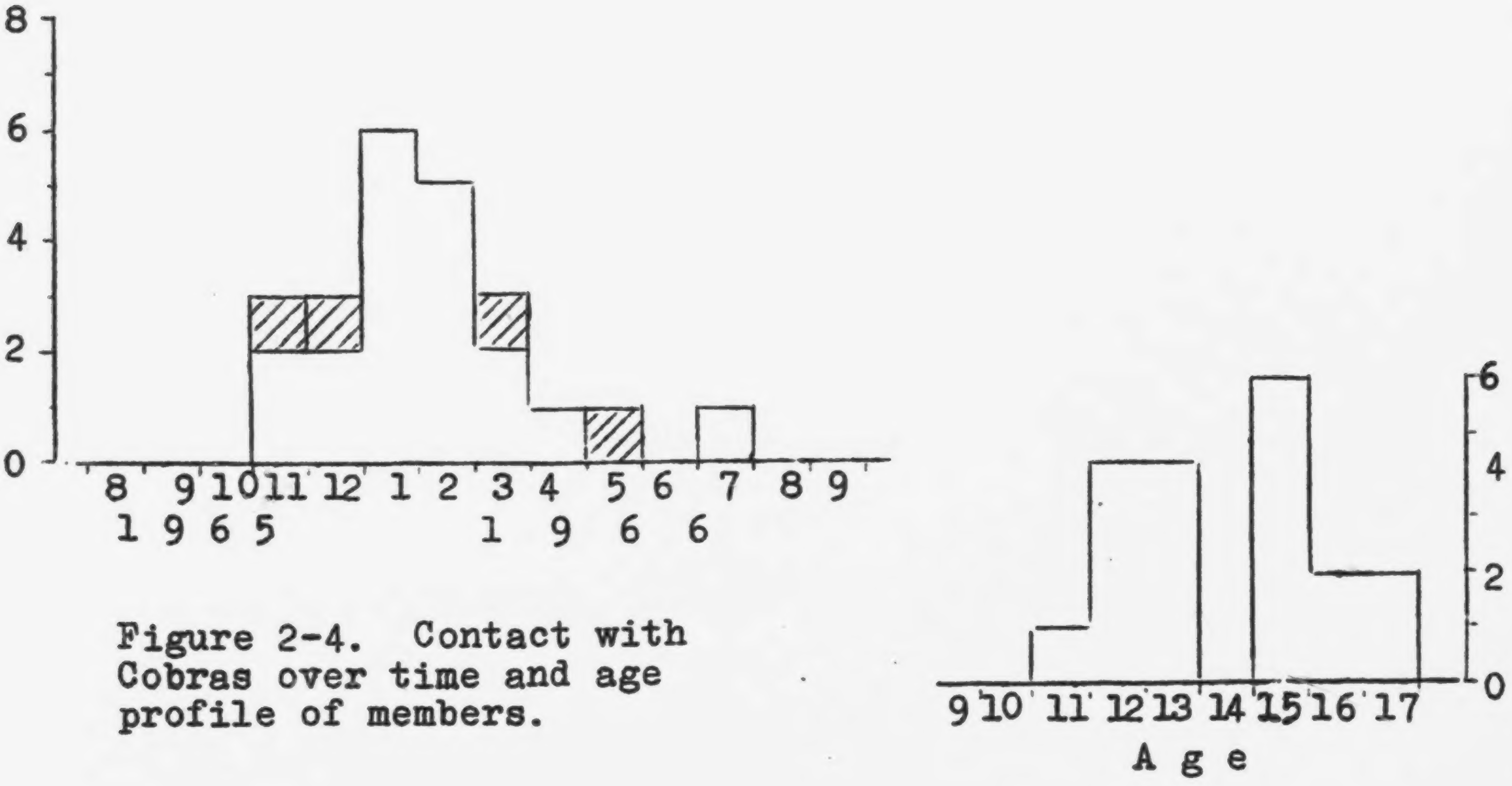


Figure 2-4. Contact with Cobras over time and age profile of members.

shows the population of this apartment house by ages, and the manner in which the T-Birds dominate the 9-13 year age group. The fact that the T-Birds include 47°/o of the population in this age group is only one measure of the centrality of the group: most of those who were not members were isolated by family pressure or other reasons, as indicated in footnotes. Some are of West Indian background, and are kept at home by strong family pressure. Others are Puerto Rican and attend Catholic school. "Membership" is illustrated by the sociometric diagrams in 4.1, which show the network of associations which define members, marginal members and isolated individuals in the project. In this report, we shall not enter into detailed differentiation of members within the peer group, but we shall contrast members with isolated individuals, and the T-Birds project gives us the best comparison population with which to do so.

The "Aces". We also studied a smaller group located in another of the projects serviced by the Stephen Foster Center. Four members of this group, the "Aces", were studied in the complete paradigm of individual and group behavior. The Aces were not studied in enough detail to establish the full outlines of the group and of its relation to the building as a whole; and this peer group therefore plays a minor part in our report.

2.1.4 Teen-age peer groups. The Children's Aid Recreation Centers represented a definite and effective adult influence upon the social behavior in the 1390 project. We therefore decided to study other peer-groups in the tenement areas located west of the project area (see Figure 2-2). This region of 28 blocks of Central Harlem shows minimum activity of any social service or youth agencies. In several years of work in the area, the only evidence of any such community agency we encountered was that several recreation centers were maintained at which the boys could play basketball if they wanted to. Since large scale gang fights are no longer reported, no youth agency appears to maintain any contact with groups in the area. 3/

The "Cobras". Several of the boys who used the Stephen Foster Center were aware of a teen-age group called the "Cobras", which appeared to be a fairly extensive group free of adult influence located in the 116th-118th Street area between Fifth and Seventh Avenues. Mr. Robins made the initial contact with this group, which appeared to show fairly strong nationalist influence and a pattern of fighting and minor delinquency characteristic of the vernacular culture. This tenement area, which will be known as the "Cobra" area in the balance of the report, is delineated in more detail in Figure 2-2. It is one of the most depressed areas in

TABLE 2-2

RELATION OF THE THUNDERBIRDS AND OSCAR BROTHERS TO TOTAL POPULATION OF BOYS LIVING IN 1390 5TH AVE.

		Floor												
		2	3	4	5	6	7	8	9	10	11	12	13	Total
Families		10	10	10	10	10	10	10	10	10	10	10	10	121
Children		19	19	11	15	22	19	19	16	20	24	16	23	223
Boys age														
	1	*						*	*					3
	2	*		*	*	**			*					6
	3							*		*	*			3
	4										*			1
	5							*			*			2
	6	*	*					*			*			4
	7	*				**						*		4
	8						*		*	**	*			5
T-Birds	9		*				*	T		*̃	TT	*	**	9
	10		*	*̇		*̇			TT		T	**̇		8
	11				*	TT		T			T	*̇	T	7
	12							T	T			*̃		3
	13	**̇*̃	T		*		*	✗T	T̃			*	T	11
	14	*	*	*	*	*		*		*	*	**	**	12
	15	**	*			*	*	*		**			**	10
Oscar Bros.	16	*	**				0		*	*̇*̃	0		*0	10
	17						0		*0	0	*̃		*	6
	18				*		0			*	**̃			5
	19													0
	20													0
														109

T	Thunderbird	*̃T̃	Puerto Rican
0	Oscar Brother	*̇	West Indian
*	non-member	✗	kept at home

[NB: one family on first floor, no children]

Harlem, bordering on a region of strong activity in narcotics.

At this time, Mr. John Lewis joined the CRP 3288 staff as an interviewer and participant observer. He developed further the contacts with the Cobras, whose social structure and history is discussed further in 4.1. During the period of our study, the Cobras actually appear to have dissolved, and a large section of the membership integrated into a new group called the "Bohemian Brothers", which showed much stronger commitment to nationalist ideology. As discussed in 4.1, all Bohemian Brothers bore Muslim attributes in addition to their slave (Christian and family) names and participated in a rich development of verbal rituals and other speech events under adult nationalist influence. During the course of this transition, the Cobras and Bohemian Brothers were studied through the S-G-S paradigm, including candid recordings en route to outings, and several group sessions with video-taped sections. Late in 1966, the Bohemian Brothers as a formal organization was dissolved in favor of general membership in the Nation of Islam. After the second group session, contact was broken off; the members considered that any contact with a group including whites was not possible because it would render them ritually unclean and lead to loss of occult knowledge (see 4.1). In late 1967, some further observations of Cobras and Bohemian Brothers were made by Mr. Lewis. Figure 2-4 shows the age profile of the Cobras and the history of our contacts with them.

While the T-Birds showed fairly stable membership despite changes of format, the Cobras underwent a radical change of membership, leadership and ideology. In this report, the "Cobras" will include both members of the original Cobras and the re-formed "Bohemian Brothers", despite the fact that there are some individuals who were not members of both groups. No extensive observations of isolated individuals were made in the Cobra area.

The "Jets". The Cobras fought at various times with a number of neighboring groups. One of the largest such groups, the "Jets", was located south of the Cobra region in the area from 11th to 113th Street, primarily on 112th Street between Lenox Avenue and Eighth Avenue. Mr. Lewis made contact with this group in January 1966. An apartment on 112th Street was rented to serve as a base for Mr. Lewis's work as a participant observer. The basic S-G-S series was completed by May, but contact with the Jets was continued over the next year. A fairly large number of isolated individuals were interviewed in this area--23--to provide contrast with full and marginal members of the Jets.

▨ group sessions

☐ single interviews

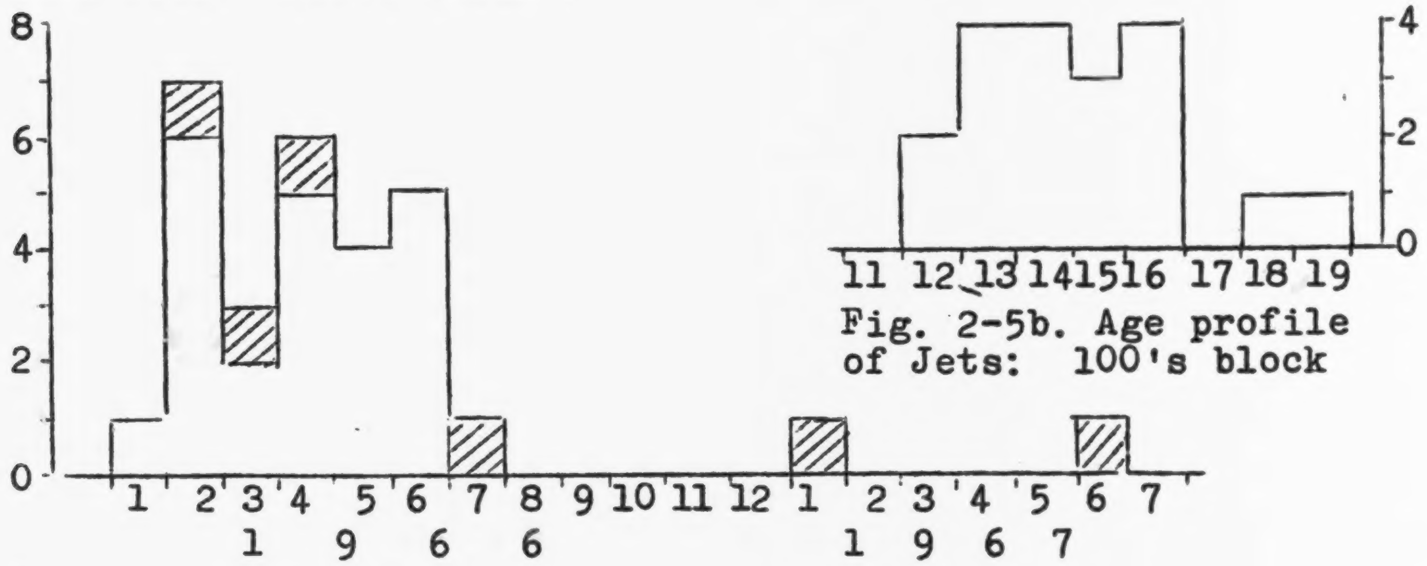


Fig. 2-5a. Contact over time with Jets: 100's block

Fig. 2-5b. Age profile of Jets: 100's block

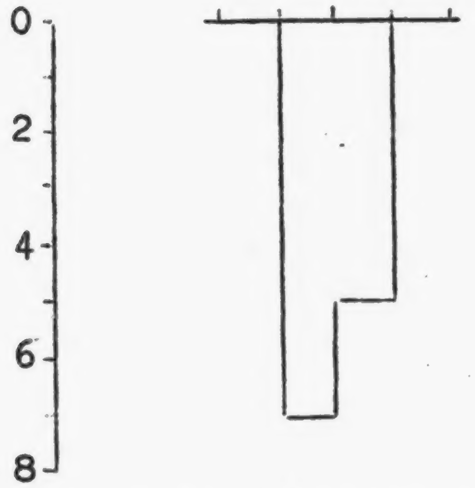


Fig. 2-5c. Contact over time with Jets: 200's block

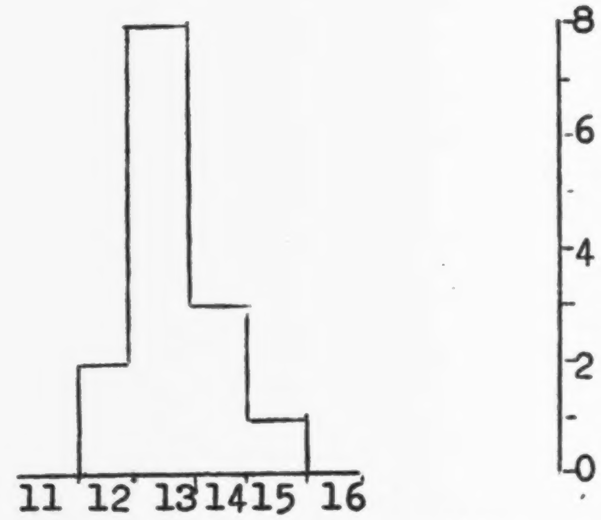


Fig. 2-5d. Age profile of Jets: 200's block

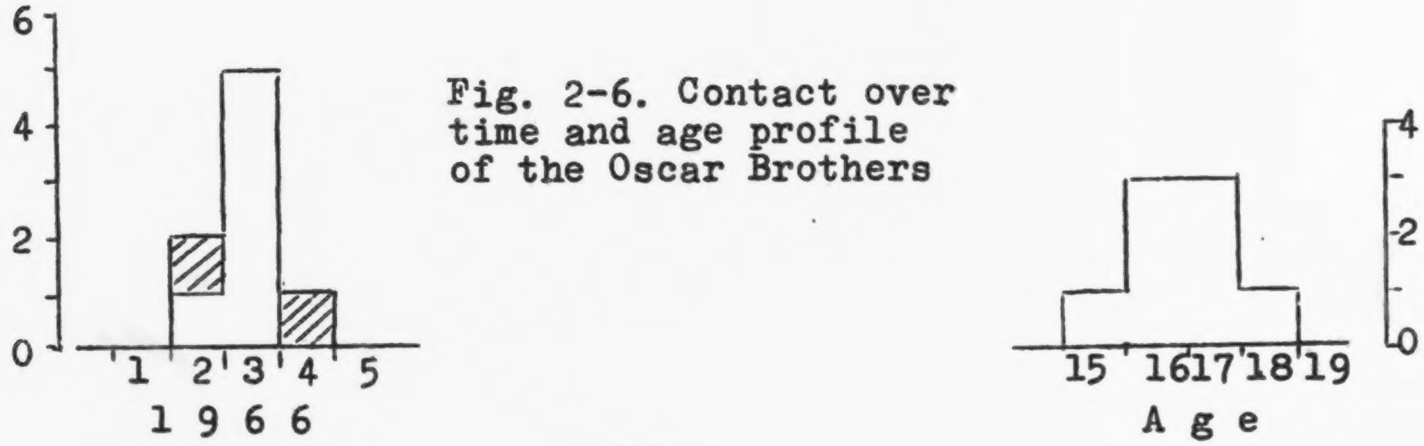


Fig. 2-6. Contact over time and age profile of the Oscar Brothers

At about the period of our first contact with the Jets the group was considerably enlarged by the joining of a somewhat younger peer-group network located one block to the west, on 112th Street between Seventh and Eighth Avenues (see Figure 2-2). While this group remained somewhat self-contained from the point of view of immediate, day-to-day hang out patterns, it became officially and ideologically a member of the "Jets".

The age profile of the central and marginal members of the two Jets groups is shown in Figure 2-5a-d, and the time-profile of our contact with them is shown as well.
It must be understood that contact with the Jets and Cobras was far more extensive than the interviews themselves: Mr. Lewis was in the neighborhood every day, saw the groups on many casual and social occasions, and made extensive notes on the day-to-day activities of the groups and on important events. He was identified by the adults of the neighborhood with the groups, and a social mythology grew up attributing various anti-social motives to him. The Cobras and the Jets were considered relatively "bad" by many adults in the community; the term "hoodlums" was generally applied. Once Mr. Lewis had been identified with the groups, it was difficult for him to deal directly with other age groups.

Position of the Jets and Cobras in the community.

The question naturally arises, what larger population can the Jets and Cobras be taken to represent? There is no known method of enumerating all of the groups in a given neighborhood, since informal associations form and re-form, cross and over-lap. Our study did not select groups on the level of the immediate or primary group formed by day-to-day contact. Instead, the level selected--the Jets and the Cobras-- represents the next higher level of teen-age organization which is more precisely defined and can be enumerated. The Jets and Cobras are "named groups" which dominate a particular neighborhood within the 10-17 year-old range. No more than one such named group can exist on a given block or neighborhood. Not every block has such a named group--the geographical distribution indicated on Figure 2-2 shows that the Jets are quite densely concentrated, representing a very large proportion of the boys in that age range within a given block, while the Cobras is a much more diffuse group. Yet the important fact is that we can assert that no other named group lies between the Jets and the Cobras. Both groups refer to many other groups with which they are in contact, in other geographic directions, and both groups frequently refer to hostile contacts with each other. If any third group did exist between the two, it could not have escaped the "social knowledge" of the members.

The Jets and Cobras are clubs, spontaneously organized by the members. As formal organizations, they have the following characteristics:

1. A name.
2. Membership.
3. Officers: president, vice-president, war lord, prime minister.
4. A song.
5. A history.
6. A mythology, centering about certain encounters with other groups.
7. Initiation practices.
8. (A junior organization).4/

More important than these particular characteristics is the very fact of group existence. Not everyone is equally clear on what the Jets and Cobras are, and it is very difficult to state when the group is meeting or operating as a group (see 4.1). The actual texture of day-to-day contact is formed by smaller "primary groups" which we investigate by a number of means (one of the most important is the question, "Who are the guys (cats) you hang around with?") Yet the fact of Jet and Cobra existence, and their real or mythological role in influencing behavior at critical moments in group history, cannot be denied.

It must be understood that the pattern of "gang" activity has changed radically in the past ten years. In the 1950's there was a great deal of gang fighting in New York City, and most young men in their 20's look back on the gang as essentially a fighting organization (Yablonsky 1963), but gang fighting is practically extinguished today. The few gang fights that do occur are magnified through ideological lenses which are perhaps inherited from this earlier period of gang activity. Yet the role of the Jets and the Cobras as fighting groups is intact in the sense that solidarity in fighting with other groups provides the warrant, history, and justification of the group, and is one of the primary sources of prestige for individual members.

In studying the Jets and the Cobras, we began with the leaders and central members, proceeded to the general membership, marginal members, and isolated individuals* on the fringes of the group. We also studied a number of individuals in the Jet neighborhood who had no connection with the Jets at all. We thus obtained data on the language behavior of the central members, most typical and most bound by the vernacular culture, as well as the language of a number of individuals who participate only partly in this culture. One can make a rough estimate of the relation of these groups to the total population as follows: In the 100's block on

---

*"lames"

112th Street, between St. Nicholas and Seventh Avenue, there are 421 dwelling units. The 1960 Census shows an average of 3.05 persons per household in Central Harlem, which yields an estimated 1284 individuals.[6] Of these we can expect that 13.5°/o will be males between 10 and 19 years old; that is, an expected 173 individuals. Half of these would be within our age range of 12-17 and we can therefore expect from 70 to 90 adolescent boys in the area. We actually interviewed 14 individuals from this block. The total population of adolescents includes many boys who are kept at home by strong family influence or in other ways prevented from participating fully in the street culture. The Jets therefore represent a large proportion of the adolescent members of the street culture on this particular block.

The selection of the two major adolescent peer groups, the Jets and the Cobras, was particularly fortunate since these two groups contrasted sharply in their attitudes toward and participation in nationalist ideology. The Cobras [later the Bohemian Brothers and members of the Nation of Islam] were always influenced by nationalism and Muslim thinking, and gradually became more deeply involved in the verbal rituals of Muslim ideology. The Jets were completely uninfluenced by the entire religious movement; in fact they expressed hostility towards it. Even on the fundamental question of eating pork--a life and death issue among the Cobras--the Jets were indifferent. They rejected the notion that pork was unclean, although they knew that it had to be cooked well, and ate it without any feelings of guilt. The T-Birds were in the Cobra area, and as noted above, older members had contacts with the Cobras. We were able to observe the gradual penetration of Muslim ideology into the T-Birds.

The Oscar Brothers. A third adolescent group of teen-age boys was studied in some detail--a group located in 1390 Fifth Avenue, the same project building as the T-Birds. This was a somewhat older group, 16 to 18 years old, who did not in fact form a club or formal organization on the level of the Jets or Cobras. As Table 2-2 shows, they represent the dominant group in the 16 to 18-year-old range in the project. The name "Oscar Brothers" was conferred on them by the T-Birds, who had called upon them for help in a number of fights; the cry "Go get the Oscar Brothers!" had become a standard element in the history of T-Bird fights with other blocks. However, the group was embarrassed by this label, and rejected any such identification. In many ways, they tended to resist the organizational pressures put on them by such highly organized groups as the nationalist Five Per Centers; even though the T-Birds themselves showed the effects of nationalist ideology late in 1966 and 1967, the Oscar Brothers rejected social organization of this type and hewed to a purely individual line. The "Oscar Brothers" is therefore a primary group and no more.

The age profile and our history of contact with the Oscar Brothers is shown on Figure 2-6. Their use of NNE represents the first steps in the transition between adolescent culture and entry into the adult community, and in many ways provides us with insight into the linguistic shifts characteristic of that movement.

2.1.5. White peer groups. In order to evaluate the data derived from a study of Negro peer groups, and distinguish NNE rules from general non-standard WNS grammars, it is plainly necessary to make a close comparison with closely matched white groups. In the Lower East Side study (Labov 1966a), it is possible to compare a good number of white and Negro adolescent speakers from individual interviews carried out in the home. One of these sessions, with a working-class Irish-Italian family, brought together seven boys in excited interaction, although the S-G-S paradigm was not applied. Some comparisons of NNE and WNS are made from these materials. However, we wished to include in the present study a close examination of a pre-adolescent and a teen-age white group, following the S-G-S paradigm with identical interviews and reading texts.

It is difficult to find any section of Manhattan where working-class whites are not in close contact with a Negro population. In some areas, the cultural and linguistic influence of the Negro group is very strong (Labov 1964b:98). To minimize such influence, a section of Manhattan was chosen where the residential pattern separates the white and Negro groups fairly well, and where extensive contact occurs only in schools: the Inwood section of Washington Heights. One pre-adolescent peer group was located in this area, and one closely related adolescent group (that is, pairs of brothers form the nucleus of both groups, a pattern similar to that which prevails with the Cobras and Jets--see 4.1). These were not named groups, but informal primary associations similar to the Oscar Brothers. The S-G-S paradigm was completed with the two Inwood groups, and these will form an important base for comparison and interpretation in the presentation of the results in Chapter 3.

2.1.6. Other youth in Central Harlem. Adolescent girls. All of the approaches to peer-groups mentioned above involved males. Comparison of male and female groups is unquestionably an important step in the analysis of NNE; however, since males are the chief exemplars of the vernacular culture, and also show the most serious reading problems, it was decided to concentrate upon males exclusively. One female group associated with the Cobras, the "Danger Girls", was interviewed at length in one session, but no individual interviews were carried out.

To study groups properly, it will be necessary to train several participant-observers who could duplicate Mr. Lewis's work.

Pre-pre-adolescents. From our exploratory interviews, it was apparent that a different set of techniques would be necessary to work with boys nine and younger--that is, our methods were designed to elicit speech from the age ranges of 10 to 12, and 13 to 17. In order to examine the range of variation characteristic of grammars of younger boys, a set of five interviews was carried out with boys 7 to 8 years old from the Stephen Foster area. Many of these were younger brothers of the T-Birds. One small group session was held which showed that appropriate modifications of our basic techniques for group work could be successful in eliciting spontaneous speech from this age range.

2.1.7. *The random sample of adults*. While the work on the adolescent peer groups was being carried out, Mr. Robins continued to do exploratory work with adults in Central Harlem. When the adult instrument (Q-HAR-Ad-IV) was completed, it was decided to use it with a stratified random sample of three selected areas in Central Harlem.

1. *The "Riverton-Lenox" territory*. An area of high- and middle-income housing projects where the maximum concentration of residents at the upper end of the socio-economic scale in Harlem could be located. Two adjacent groups of apartments were selected: the Lenox Terrace (2186 Fifth Avenue) and the Riverton middle income projects at E. 135-138th Sts. between 5th and Madison (see Figure 2-1).

2. *The "Cobra" territory*. The tenement working-class area of 115th-116th Streets between Fifth and Seventh Avenues including that portion of the Stephen Foster projects studied previously, and the tenement area of the Cobra territory. (See Figure 2-2).

3. *The "Jet" territory*. The working-class area of 112th Street, between Fifth Avenue and Eighth Avenue, including the tenement area of the Jet territory and the lower portion of the Stephen Foster low-income projects (see Figure 2-2).

Sampling of these three areas provided us with the maximum contrast between middle-class and working-class groups. The conditions of the tenement houses in the Jet and Cobra territory and other information led us to believe that the Jet area would show a higher concentration of employed working-class families, and the Cobra territory a higher concentration of unemployed families on welfare. Random samples of adults in these areas gave us a view of the linguistic behavior of the adult society which surrounded the T-Birds, Jets and Cobras. It would have been possible to interview only the families of the boys already studied; however, it was felt that it would be more realistic to compare adolescent behavior with that of the entire adult community, since the immediate family is only one of many adult influences on the boys, and many of the Cobras, for example, lived away from home for long stretches of time in empty apartments taken over by the group. Secondly, extensive contact with the adult families would have made it difficult to maintain contact with the Cobras and Jets on the same direct relationship, particularly for Mr. Lewis; much of the free communication between him and the Cobras and the Jets was based on the premise that he would not be in touch with their families.

Sampling design. The following sample design was set up for the three areas:

TABLE 2-3

	Lenox-Riverton Area		Cobra Area		Jet Area	
Age level	Male	Female	Male	Female	Male	Female
20-39	5	5	10	10	10	10
40-	5	5	10	10	10	10

These cells were to be filled by random selection from the entire population; when a given cell was completed, any further subjects selected randomly who would fall into that category were ineligible for the sample. This procedure was followed since it was found in previous studies that men were much harder to locate and interview than women, especially men in the 20-30 age range, so that samples not so stratified had an excess of females and older males.7/

An even more serious bias is found with an unstratified sample in the completion rates for socio-economic levels. A survey conducted by HARYOU in 1965 by sociologists well trained in survey techniques, showed the following comparison with census figures of family incomes:

Family income	Percent in sample	Percent in census	
under $3,000	12	32	
$3,000-$4,999	34	32	
$5,000-$6,999	26	21	N:453
$7,000 and over	28	15	

(HARYOU-ACT 1965:130)

This result of differential completion rates actually inverts the socio-structure of the community, and makes it very difficult to interpret the results of the survey. Almost two-thirds of the lowest income group was absent, and twice the proportion of the highest income group was represented. Clearly it is essential to avoid such a bias if we are to obtain any realistic view of the sociolinguistic structure of the community, and Table 2-3 is designed to that end. It is of course not difficult to weight these sub-groups by the census figures and show the relation of our own sample to the over-all population of Harlem.

Selection procedures. In the Lenox Terrace projects, one apartment house was selected: 2186 Fifth Avenue, and twelve buildings were selected in the Riverton projects. The apartments were enumerated and every seventh apartment selected. In the Jet and Cobra areas, the total number of dwelling units was first estimated by counting the number of floors in each building and multiplying by the basic number of apartments in each. The approximate totals were

	tenements	low-income projects	total
Cobra area	2327	550	2877
Jet area	1968	520	2488
			5,365

The 1960 census average of 3.05 persons per family would then lead us to expect that we were sampling from a total population of about 16,000 people. A 'building unit' was defined as follows:

No. of residential units in building	No. of building units
15-24	1
25-49	2
50-75	3
76-100	4

Every third building unit was selected for study. Within this unit one dwelling unit was selected by a table of random numbers. If the apartment was empty, or the person ineligible (by reason of physical incapacity, place of birth, age, or sex), selection was made by the following rule:

a. rightmost adjacent
b. leftmost adjacent
c. second on right
d. second on left, etc.

Solicitation of interviews. Letters were sent and addressed to the male head of the household, or to the female if no male was present. The form of the letter is given in Appendix B. The focus of the letter was on the exploration of regional customs in general, rather than language in particular; explicit discussion of language, as one of these customs, was not introduced until the second, formal part of the interview. Although the letter is effective in reducing suspicion and resistance to interviewing, it was not as effective in working-class areas. As indicated by the HARYOU survey, the normal resistance to interviewing and suspicion and fear of the interviewer's motives, is exaggerated in Central Harlem. A much greater number of broken appointments and outright refusals was found than is normal in such surveys, even in urban areas. Although the letter had some effect in reducing suspicion and gaining admittance, a great many people in the Cobra and Jet areas did not (or could not) read it. The letter was then supplemented with a coupon (see Appendix B) which was remarkably effective in increasing the rate of interviews completed.

Final sample interviewed and completion rate. Table 2-4 shows the distribution of the completed sample of 100 subjects, and Table 2-5 shows the completion rates in each area. The completion rate for the Lenox-Riverton area is quite low, partly because the survey was conducted in the summer, and partly because the target sample was overextended to 58 units from the original 40. The primary target was the working-class "Jet" and "Cobra" areas, where the sampling and interviewing problems were greatest, and the major effort in obtaining interviews was made there. The completion rates for the Jet and Cobra areas are satisfactory, and show that the principal bias of the HARYOU survey was avoided.

The adult sample shows an equal balance of men and women because of the special effort made in this direction. The procedure with older men did not give much difficulty, since the 50°/o ratio was achieved by interviewing the male head of the family whenever he was available; otherwise, the female head was interviewed. However, the fundamental difficulty with younger men was not solved, and a supplementary group of three younger men was interviewed at the HARYOU Drug Rehabilitation Center, 2285 Eighth Avenue. We have reason to believe that many young men in our sample whom we could not locate or interview are engaged in illegal or semi-legal occupations, and in one way or another in contact with the narcotics trade. It was therefore felt that these three subjects would help to complete the sample in a way that would correct the bias in this direction.

2.1.8. Other interviews. In addition to these interviews, a large number of other interviews with Negro and

TABLE 2-4
DISTRIBUTION OF ADULT SUBJECTS

	20-39 years		over 40		TOTAL
	Male	Female	Male	Female	
Lennox-Riverton	5	3	7	7	22
Cobra territory	10	9	10	10	39
Jet territory	10	11	11	10	42
					103

	Geographic area raised in 4-13 years		
	South	North outside NYC	NYC
Lennox-Riverton	29°/o	33°/o	38°/o
Cobra territory	57	07	36
Jet territory	62	06	32

TABLE 2-5
COMPLETION RATE FOR ADULT SAMPLE

	Sample drawn	Ineligible	Refusal	Interviewed
Lennox Terrace	28	3	8	10
Riverton Apts.	30	3	3	12
Cobra territory	64	12	9	39*
Jet territory	71	9	16	42**
				103

*Including three supplementary informants from Addiction Rehabilitation Center and one from 1390 5th Ave.

**Including one supplementary informant from Addiction Rehabilitation Center and one from 1390 5th Ave.

Spanish-speaking informants was available from the following series carried out in earlier studies:

201 interviews with New York City informants from the Lower East Side studies, including 39 Negro subjects

52 interviews with boys 14-17 years old, representing the population of the Bronx Youth House in August of 1964, including Negro and Puerto Rican subjects

85 interviews in Venice, California, carried out by a class in Sociolinguistic Field Methods conducted by the principal investigator in the summer of 1966, including one-third Negro and one-third Spanish-speaking subjects.

A supplementary series of six Negro adolescent boys was gathered by Mr. John Story for CRP 3288 in the fall of 1966 to ensure greater comparability between the Venice and the New York City series.

2.1.9. School records. With the assistance of the New York City Board of Education[8], we were able to review the school records for the following subjects whom we had interviewed:

	Pre-adolescent	Adolescent	Total
Peer-group members	18	29	47
Isolated individuals	27	9	36
			83

From these school records we obtained data on reading and other academic skills through scores on the Metropolitan Reading Achievement Tests and Iowa Tests, Pinter-Cunningham IQ tests administered in the first grade, recent school grades, health records, attendance records, parents' birthplace, and some data on behavior and discipline.

2.2. Instruments and methods for eliciting data

A wide variety of means were used for obtaining the linguistic data and other information: (1) questions asked in face-to-face interview procedures; (2) group interview procedures; (3) reading texts and word lists; (4) perception and correction tests; (5) subjective evaluation tests; (6) memory or repetition tests.

2.2.1. Individual interview procedures. Appendix A contains the main body of two of the basic instruments: the adult form Q-HAR-Ad-IV, and the adolescent form used by John Lewis, Q-HAR-TA-Hip. Excerpts from Q-HAR-PA-III, the pre-adolescent form, are given in CRP 3091. These show the general outline and some particular questions used in the face-to-face interviews. They are not questionnaires in the sense normally intended in survey methodology, since they do not obtain identical information from all subjects in most areas. The questions in the survey are never asked in exactly the same way, and seldom in the same order. The purpose of the interview procedures can be outlined under the following headings:

1. To elicit the maximum amount of speech, in a wide range of styles.
2. To obtain demographic data and information on family structure and peer-group structure.
3. To obtain specific information on the speaker's phonological treatment of particular forms.
4. To elicit a wide range of values and attitudes towards the values of street culture (toughness, trouble, excitement, smartness, fate, sex, cool); values of the ethnic group (nationalism, and other specifically Negro concerns); values of middle-class society (school and job aspirations); and attitudes towards speech (SR and other tests).
5. To obtain examples of the use of language which illustrate the verbal skills of the speaker (sounding, narratives, toasts).
6. To obtain data on the subject's ability to perceive and reproduce certain contrasts between standard English and the vernacular (PT, CC, and VC tests).

Many of the questions asked in the interview embodied several of these purposes, while others were more limited. In order to ensure the objective of the primary function (1), a general rule was established that no question take more than five seconds to ask, so that the main body of the recorded material was the speech of the subject, not the interviewer.

Mr. Robins' interviews were recorded on a Nagra Model IIIBH full-track tape recorder, and Mr. Lewis's on a Uher 4000-S half-track machine. In all cases, RCA BK6B lavaliere microphones were used. The primary means of increasing signal-to-noise ratio and obtaining optimum quality was the placement of the microphone within twelve inches of the speaker's mouth.

The construction of the interview forms and the general design are discussed in some detail in CRP 3091, pp. 14-27. This report will not be concerned with detailed analysis of the responses to the content questions on values and attitudes, but rather with the internal relations of the linguistic data and correlations with the most important extra-linguistic facts. We will therefore confine the following discussion to techniques developed beyond the level indicated in CRP 3091 and to certain specific issues on the use of the interview procedures.

The pre-adolescent interview form. The pre-adolescent form Q-HAR-PA was used principally in the Vacation Day-Camp series and with the T-Birds and Aces. This procedure is discussed most fully in CRP 3091.

The TA-Hip Interview. The teen-age interview schedule Q-HAR-TA as first developed was based upon the pre-adolescent form, expanded to take into account the differing interests of the older boys. While the language used was informal, and intended only as a base for the actual colloquial forms used in the interview itself, the phraseology and style were quite distinct from that of the Negro adolescents in Central Harlem. Mr. Lewis re-wrote the Q-HAR-TA form entirely to fit in with his own style as Q-HAR-TA-Hip, which allowed him to perform more naturally his basic role as participant-observer. Some comparisons of Q-HAR-TA and Q-HAR-TA-Hip are given below.

Q-HAR-TA	Q-HAR-TA-Hip
We'd like to know how different people in this town are from people in other parts of the country...we know people around here have their *own* way of doing things. We'd like to sit down with you and get *your* ideas on what makes this town tick--like I want to know from you what's happening.	We'd like to dig how hip folks are around here. We know folks here in Harlem have a hipper way of doing things than folks in other parts of the country.
2.0. Is there one guy the others listen to? who?	2.0. Is one cat the leader? who?
2.1. Is he the smartest, the biggest, or the toughest?	2.1. Is he the slickest, the biggest, or the best with his hands?

(Q-HAR-TA)	(Q-HAR-TA-Hip)
3.1. Were you ever in a situation, a time or a place, where you were in serious danger of being killed? where you said to yourself, "This is it"?	3.1. Were you ever in a bag where you were up tight and almost blew your life?
3.2. What happened?	3.2. What went down?

For the text of Q-HAR-TA-Hip, see Appendix A.

The interview forms in actual use. All interviewers approached the interviews with considerable flexibility. Whenever possible, specific knowledge of the peer group being studied was used to produce the greatest possible volume of casual speech, and any questions which threw light on peer-group structure were followed up in detail; a steadily increasing body of knowledge about the particular events important to that group was effective in decreasing the distance between interviewers and subject which impedes the flow of speech. The following excerpts from Mr. Lewis's interviews will serve to illustrate these principles in action.

From a single interview between John Lewis [KC] and the war lord of the Jets: [15 years old; Tape 624:164 ff]

KC: What was the best rumble you ever saw?

Bel: Um, let me see. With us against the Cobras.

KC: What happened?

Bel: See there was only, y'know, there was eight of us, so we was in a park, so was all the Cobras there. So I said, so I sent a guy back, I say, "Man, hurry up and go and tell Hop and 'em to hurry up." So Hop and 'em was coming, y'know, we didn't know it, so we started, we got ready to fight. And it was only seven of us against all the Cobras; then all our boys jumped from behind the wall. Then the Cobras ran, boy. They was catching 'em all and doing it to 'em, boy...

......

KC: Did the Jets ever fight the Cobras when the Jets ran from the Cobras? Never? Huh?

Bel: Can you explain that all over?

KC: I said, did the Jets ever fight-- well, it's because I -- see, the reasons I ask you is because, you know, you told me how the Cobras ran from you, now.

JL: Oh, we never ran.

KC: Huh? Never ran? What happen that time you was getting ready to fight the Cobras that night?

Bel: You mean when the cops came?

KC: No, I mean that night when I was around.

Bel: Oh, see, they had called, y'know, there was going to be that Peaches and Rickie, I think and Rickie ran, they told 'em, so they came to the Center and got us. So we went looking for Rickie and 'em, we went around there. So we was talking to 'em, so we start talking, y'know. So then we couldn't find Rickie and 'em. We look down there. Somebody said they had saw Rickie and they came and ran. So then we went back and we came back again with Micky and them ....

Without KC's personal knowledge of the situation, the second narrative would never have been obtained; without his ability to work with and within the group, neither narrative would have been recorded. For further examples, see Appendix A

Double interviews. The basic S-G-S paradigm was completed with both the Cobras and the Jets. While Mr. Lewis was interviewing the last group of Jets, and a large number of isolated individuals in the Jet area, we shifted to double interviews in which two boys who were close associates were interviewed together. Two RCA BK-6-B lavaliere microphones were used through a simple Y-connection. Without a mixer, one signal was always stronger than the other, and it was therefore not difficult to distinguish one speaker from the other. The interaction of the two friends led to a considerable increase in the volume of speech and the spontaneity of response, so that these double interviews were one step closer to group sessions than the single interviews. Considerable skill was needed to obtain comparable and complete responses from both, and some data was lost or made less certain, as in responses to questions on hangout patterns (Who are all the cats you hang out with?). However, the gains in volume of speech and other data more than offset this loss, especially since many of these individuals were not present at group sessions.

Style shifting. One of the basic aims of the methods used was to elicit speech in a wide range of styles, particularly the basic vernacular characteristic of casual speech or in spontaneous speech. The fundamental problem to be solved, as discussed elsewhere, is that the question-and-answer format and the general social definition of the interview situation interferes with this aim. For pre-adolescents and teen-agers, the basic method of obtaining spontaneous speech is to allow the peer group to control speech in group sessions, as discussed below. In the Lower East Side study, it was found that the techniques for eliciting style shifts with adults were not regularly effective with adolescents. But the techniques for allowing adults to shift from careful to a more casual shift were effective in the LES study, and the same techniques were used with adults in the Q-HAR-Ad procedure. Questions on childhood interests, fighting, and on the danger of death elicited narratives which were plainly different from other speech. Long digressions from other questions provided similar opportunities. However, the para-linguistic criteria for confirming the existence of a style shift independent of the phonological and grammatical data were different in the Harlem study. Instead of selecting five channel cues, only one was used: change in intonation pattern. We observed dramatic shifts from the limited range of intonation contours characteristic of SE and WNS to a much wider range, including falsetto, which is characteristic of NNE. This pattern is so regular that it proved to be the most reliable indication of a style shift. All of the passages extracted from the adult interviews as casual speech were so marked. The results confirm the fact that such intonation changes, even on an impressionistic basis, are good indicators of a style shift.

Readings. Each individual interview included readings of texts and of isolated words: for detailed discussion see CRP 3091 pp. 21-28. The pre-adolescent subjects and most of the adolescents read nine sentences which test the speaker's ability to decipher the past-tense meaning of the -ed suffix and transfer it to the interpretation of the homograph read in a following clause. The longer reading "Nobody Knows Your Name" was read by all adults and many teen-agers. Texts of both are given in Appendix A.

Classroom Correction Tests. The pre-adolescent interviews included a test which determined the subject's ability to detect NNE forms in an SE context typical of the classroom. For details of the form see CRP 3091, pp 21-22, and for results section 4.5 below.

Perception Tests. Pre-adolescent interviews also included a test of the subject's ability to perceive SE phonological distinctions which are absent for many NNE speakers. Details of the test are given in CRP 3091 pp 23-25, and results in section 4.5 below.

The Adult Interview Form. The last of the interview forms to be developed was Q-HAR-Ad-IV, which enters more deeply into the value systems of the community than any of the others. Many of the questions embody our previous knowledge and assumptions about known behavior patterns and value systems of Harlem residents, and the questions probe further into these activities and value systems. Extracts from the text are given in Appendix A.

Subjective Evaluation Tests. For the adult interview, evaluation tests were developed which registered the subject's unconscious reactions to particular linguistic variables. The construction of the tests followed the general principles used in the Lower East Side study (Labov 1966a:XI) but with a richer set of evaluative scales. The key sentences in which the variables were concentrated were drawn from the reading "Nobody Knows Your Name" (Appendix A). All the speakers were men. The variables selected for examination were Northern vs. Southern style, (th), (r) and consonant cluster simplification (KD). The basic technique used here was to prepare a series of utterances in which the same speakers are heard using "zero" sentences with no linguistic variable of interest, and sentences in which particular values of the variable are concentrated. Rather than have actors or linguists simulate these variables, we insist upon test materials in which the natural production of members is judged. However, it was not possible to locate Negro working class men in Harlem who used the basic vernacular and yet read well enough so that their articulation rather than their reading skill would be judged.[8] Yet it is clearly essential that the speech heard be controlled so that only one major variable is contrasted in any pair of sentences. The technique which was finally adopted was to have a working class speaker repeat back a given sentence many times, rather than read it; furthermore, a speaker was located who could give a wide range of "Southern" or "casual" styles as opposed to his "careful" or "Northern" style. From twenty-five such repetitions we selected two polar types which exemplified the contrasts we needed. The details of the variables are given in section 4.6 where the results of the SR test are discussed.

In the Lower East Side study, only one scale for judgments was used -- a scale of job suitability which measured overt middle-class values. In this test, the number of sentences was reduced from 22 to 10, and three or four scales were used:

a. Job suitability. In answer to the question, "What is the highest job this speaker could hold, talking the way he does?", the listener checked off his judgment on an eight-point scale:

Television announcer
School teacher
Office manager
Salesman
Post Office clerk
Foreman
Factory worker
None of these

Figure 2-7 shows the characteristic format on which judgments were registered.

b. Toughness. There were two forms of this question. For adults and isolated teen-agers, we asked, "If the speaker was in a street fight, what are the chances of his coming out on top?" For members of the street culture, we asked, "How tough do you think the speaker would be in a street fight?". The scales on which judgments were given were:

Q-HAR-Ad Q-HAR-TA	Q-HAR-TA-HIP
Certain	Stone killer
Almost certain	Killer
Very likely	Tough
Likely	Average
Possibly	Lame
Not likely	Turkey
Very unlikely	Punk
Never	Faggot

c. Friendship. In answer to the question, "If you got to know the speaker very well, what are the chances of his becoming a good friend of yours?", listeners rated the speaker on the same eight-point scale from Certain to Never as with Q-HAR-Ad, above.

d. Self-knowledge. The concept of "self-knowledge" is a measure of participation and knowledge of nationalist ideology. This scale was used only with peer-group members who participated in nationalist culture; they responded to the speakers in answer to the question, "How much self-knowledge would you guess that the speaker has?", on the following scale:

Q-HAR-Ad SR-H-1

What is the highest job this speaker could hold, talking the way he does?

	1	2	3	4	5	6	7	8	9	10
Television announcer										
School teacher										
Office manager										
Salesman										
Post office clerk										
Foreman										
Factory worker										
None of these										

Figure 2-7. Form for the Subjective Reaction Test, Job Suitability Scale SR-H-1

Allah
Brother
Original man
Afro
Negro
Brainwashed
Pork chop
Stone pork chop

In all of these scales, there existed the possibility that the speakers did not see the labels of the scale as a linear series. To offset such complications, we indicated to all subjects that the labels were not important in themselves, but that the scale was to register one's feelings about the matter -- No. 7 was the "most", 0 was the "least", and everything else in between. The patterns of responses confirmed in most cases that the scales were regarded as linear, and that the judgments did not represent specific selections of the labels.

Scaling difficulties did arise with some of the adolescents who used the rating scales. It was found that the vernacular forms used for toughness and self-knowledge were not linear -- many felt that eight distinctions could not be made with those terms. Items 2, 4 and 6 were then blocked out, leaving a four-point scale with three mid-points. However, many of the subjects did not use the mid-points, and the scale was then functioned on four points only.

The results of the subjective reaction tests (SR tests) are presented in section 4.6.

Family Background Tests. The first of the evaluation tests registered over-all ability to identify a given speaker as a member of a given ethnic group. The primary focus of the test was upon the contrast of Negro and white speakers raised in various regions, in a variety of speech situations which favored or disfavored the use of NNE. Fourteen speakers were heard, and the subjects asked to answer the question, "What is the family background of the speaker?", by checking off one of the following:

Irish
Italian
Afro-American
Spanish
Jewish
German
Other white

For any of these, the symbols N, S or W could be used to indicate "Northern", "Southern" or "Western" regional origin.

The dialects of the first four speakers did not involve any issue concerning the relations of NNE and SE.

They represent (1) working-class Italian New York City speech, (2) a strong Yiddish accent, (3) a Cuban-Spanish accent in English, and (4) a strong Irish (Cork) accent. The remaining ten speakers show various contrasts along the North-South, Negro-white axes with several cases of the same speakers in different conditions shifting their positions along these dimensions in varying conditions. These samples include white Southerners often identified as Negroes; white Southerners shifting towards NNE in speaking to Negroes; Northern Negro speakers raised in white communities; white Northern speakers with strong Negro influence in their speech; Negro speakers shifting styles radically in talking to Northern whites or to Southern speakers of NNE. The details of each case are presented along with the results in section 4.7.

2.2.2. Group sessions. The most important data upon which this study is based is the language of pre-adolescent and adolescent speakers of NNE in spontaneous interaction with each other -- situations in which the peer group controls language in the same manner as in everyday life, outside of the adult-dominated environments of the school and the home.

When the peer groups and their leaders were first located, one or two outings were held in which eight to fourteen members went with the project staff to various points outside of Manhattan (the members were selected by the peer group leaders, up to the limit of the capacity of the Volkswagon Microbus used). These outings included trips (and cook-outs) to Palisades Interstate Park across the Hudson River, and to Staten Island across the Verrazano Bridge. Members were always quite eager to take part in these expeditions: the great majority had never visited these places or other points outside of Harlem, although many had traveled to family homes in the South.

Wooded parts of New Jersey were strange to the T-Birds, and many were afraid of snakes and wild animals in the underbrush. Mr. Lewis used the outings as a strong inducement for individual interviews: the members who could go were often selected from those who had "had their interview".[9]

Recordings were made in the microbus on several of these outings, and valuable records were obtained of extended examples of sounding, rifting and other speech events (see 4.4 below). One recording was made of a group discussion with the T-Birds outdoors in New Jersey. However, these recordings have two major defects:

(1) Despite the use of the Nagra and good microphones, the sound quality and the interference from many speakers talking at once makes it impossible to transcribe more than 40-60 per cent of the text accurately enough for good syntactic and phonological analysis.

(2) It is impossible to be sure of the identity of the speaker for most utterances. Members' judgments on these points were less accurate than our own.

Such group recordings can be utilized as supplementary data once the range of variation of individual members has been determined, and the linguistic behavior of the group as a whole can be interpreted. However, the basic data must be derived from recordings in which data on each individual is accurately preserved.

The group sessions which provide the basic data for the analysis of pre-adolescent and adolescent speech were designed to solve this problem. A lavaliere microphone was used for each individual, and his speech was recorded on a separate track. One or two group microphones were used in addition to record the over-all sound which a listener in the center of the room would receive. All of the other factors which determine speech production were favorable to spontaneous and casual speech, so that the effect of the recording process --though never entirely eliminated -- was overridden. This will be apparent in the excerpts from group sessions given in Appendix C.

The group sessions took place in the offices of the research project and adjacent areas - several large, isolated rooms in the basement of one university building. Arrangements for the group sessions were made well in advance with the leaders of the peer groups; nevertheless, several hours delay in assembling the group was normal. However, when the microbus was full the desire to attend the "party" or group session was so strong that some selection had to be made on the basis of previous single interviews, as indicated above.

The structure of the group sessions, as developed over several early meetings and continued throughout the series, involved alternations of formal activities and interim periods, during which some of the most important data was recorded. Figure 2-8 is a schematic diagram of the organization of group sessions.

1. Sports. In a large 20'x 30'empty room adjacent to our offices, various forms of improvised baseball with wiffle-bat ball and plastic bat were performed. Mr. Cohen's athletic style increased his personal contact with the groups and diminished the Negro-white distance. In another empty room, several local games were played: lodees or skelley, a complex pre-adolescent street game played with weighted bottle-caps; and see-low, a dice game involving three dice. Arguments and explanation of the rules and conversation in the course of the game was recorded by a single microphone suspended from the ceiling.

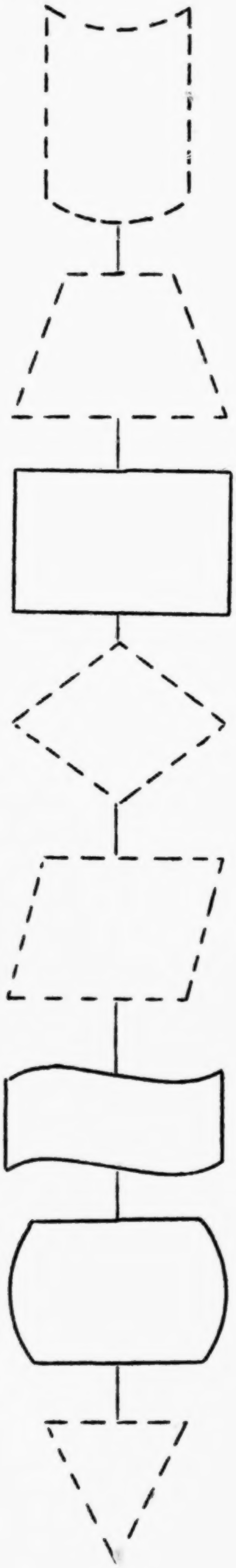
2. Card games and recording-set-up. The members with lavaliere microphones on, sat down around a card table facing each other, while the staff busied themselves setting up and "testing" the recording equipment for 20 or 30 minutes. The card games provided an ideal way of allowing members (a) to choose their own seating arrangements, (b) face each other and allow staff members take up positions outside the inner ring, (c) interact with minimum attention paid to speech in a situation which the members assume is "outside" of any interview situation. Furthermore, some kind of cheating is inevitable within the peer groups, and there are frequent accusations of cheating: these accusations give us a large corpus of questions from one member to another - the one type of utterance least frequent in face-to-face interviews.

Seats are selected by the members themselves, and seat-positions thus coincide with the actual structure of the group. Figure 2-9 shows seating structures arrived at in the card games for the largest group session, Jets II. (See section 4.1. for discussion of the significance of this arrangement.)

3. Group discussion. After the card game was stopped (a process which sometimes involved some friction) general questions were raised, usually by Mr. Lewis or Mr. Robins, for group discussion. The most fruitful of these concerned important incidents of the previous few weeks or earlier incidents which loomed large in the group's history. For the T-Birds, several of the classic neighborhood fights with rocks and zip-guns were central; for the Cobras, we have such events as the time they stole a chicken in Brooklyn, carried it home on the subway and systematically destroyed it; for the Jets,

Figure 2-8. Schematic outline of group sessions as developed for Jets and Cobras

[Solid lines: activities for which the sessions were formally arranged.]



1. Sports. Whiffle ball, See-low, karate exhibitions.

2. Card game and set-up time. Members seated around table, facing each other.

3. Discussion of recent events between Jets and Cobras. The fight in Central Park; the confrontation at the door.

4. Food. Potato chips, pretzels and soda available somewhat before and hereafter.

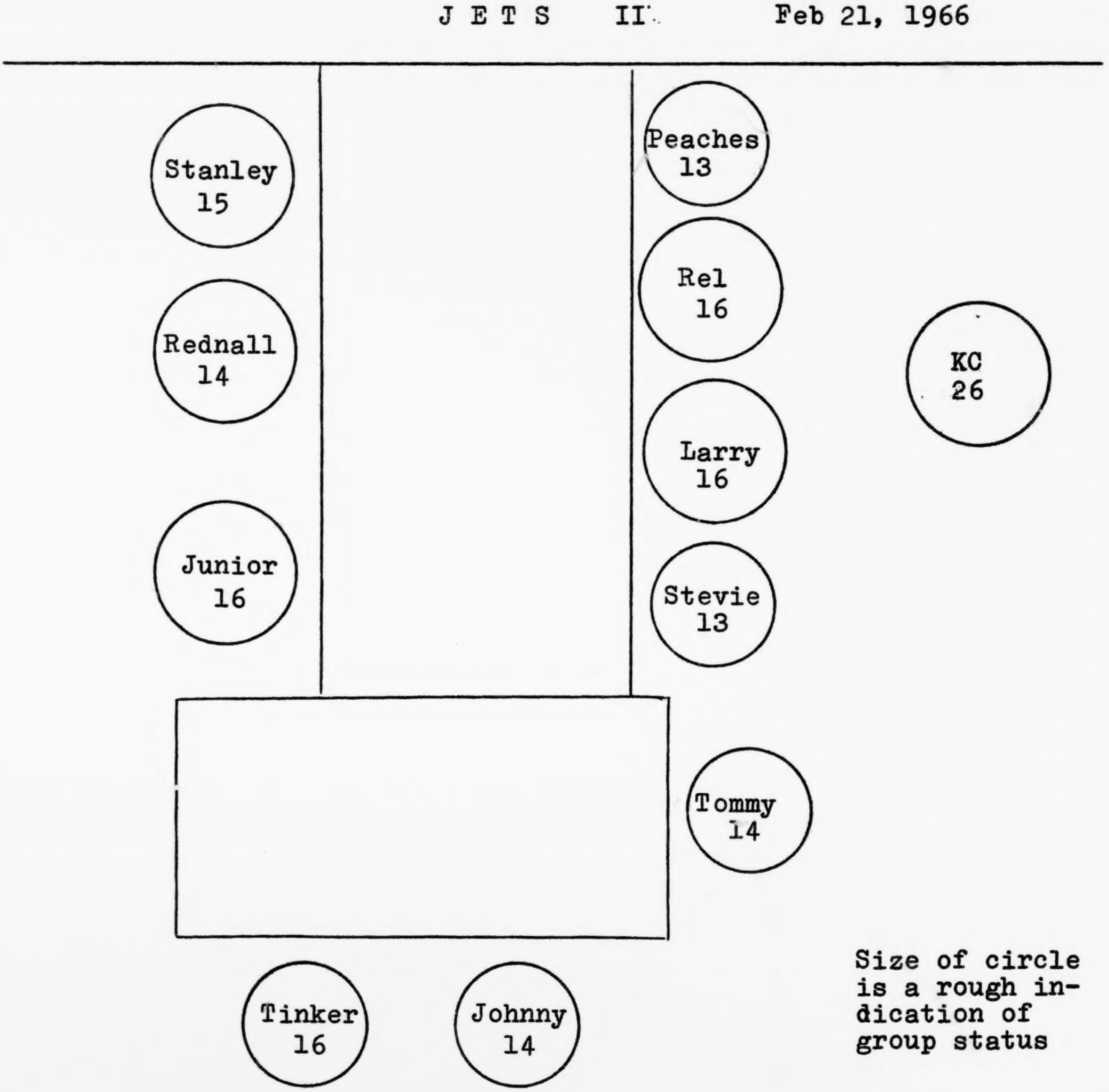
5. Sounding. Initiated by staff members, continued among group members.

6. Singing. Formal audio- and video-tape recording of group.

7. Video tapes. Watching I Spy, Clay title fights, and amateur boxing. Members run machine.

8. Break-up. Recording continued outside framework of session.

Figure 2-9. Seating arrangement for second group session with the Jets, HAR-TAG-7.


JETS II
Feb 21, 1966
Stanley 15
Rednall 14
Junior 16
Peaches 13
Rel 16
Larry 16
Stevie 13
KC 26
Tommy 14
Tinker 16
Johnny 14

Size of circle is a rough indication of group status

Notes: Junior, Larry and Peaches are brothers.
Rel is Puerto Rican; Spanish is spoken at home.
Stanley is President, Rednall is Vice-President, Rel is Prime Minister of the Jets.
Tinker, Johnny, Tommy and Stevie are from the 200's block, the rest from the 100's block.
Tinker, Johnny and Tommy sounded against each other through most of the session; Stevie communicated alternately with 100's and 200's group.

the fight in Central Park with the Cobras and the confrontation at the door in their hang-out with the Cobras (see section 4.1 below).

4. Food. Serving of soda, popcorn, potato chips, and more substantial food provided a long informal period during which any formal "interview structure" would not be considered to prevail.

5. Sounding. In this period, a staff member would initiate sounding or ritual insults by introducing a fairly simple sound, characteristic of pre-adolescents, and easily surpassed, such as "Your momma drink pee.". Long sections of sounding between group members were often recorded, and in addition, even longer sounding sessions were recorded en route in the microbus (see section 4.2).

6. Singing. Up to this point, the video camera had been used off and on to record various sections of group interaction. It was now used formally to record individual and group singing.

7. Video tape. The video tape machine was then set up to play back certain programs of maximum interest -- amateur boxing, heavyweight bouts between Cassius Clay and Brian London, Clay and Chuvalo, etc. After the machine was started, the staff member running it would ask a peer-group member to operate the forward-backward lever so that he could "see how it looks from the back". The machine was then left under the control of the peer-group member, who could stop it, go forward or backward at the request of other members. Staff members' participation was thus at a minimum.

8. Final section. The following and final section of the group interviews was the least structured; at this time the party or session was officially "over" and therefore any type of behavior might be appropriate with no emphasis on recording.

It must be emphasized that this structure provided only a very general guide to the events. In individual interviews the members often defer to the interviewer as to what is to come "next". This is a common experience in survey interviewing: the interviewer is "in charge" and very few subjects make judgments as to the appropriateness of the questions. However, in group sessions the situation is just the reverse. The members know what they are interested in doing, and resist most attempts to change from one situation to another. To stop a card game, end a baseball game, turn off the fights on television - these shifts require considerable time and pressure. Furthermore, the situation was designed by us to encourage "disruptive" behavior, which is the highly-developed specialty of several peer groups. Arguments, insults, punches, and actual fights between members were common - with video and sound recording. Just as in every-day behavior on the street the "seriousness" of any challenge, fight or insult is problematical and open to investigation. The amount of spontaneity and disruption is directly proportional to the number of members present; sessions with four members are relatively quiet; five or six members provide a considerable increase in the total volume of interaction; the largest meeting, Jets II, with ten members reached the maximum in this respect. The total volume of speech can not be determined from a recording made from one group microphone. The individual tracks show that the total amount of speech is much larger than can be heard from any one vantage point. For example, in Jets II, a sub-group of three younger Jets at one end of the table was quite divorced from any concern of the larger group. For a long period, these members were continually sounding against each other. On any microphone located more toward the center, this interaction is heard only as a confused addition to the general noise level. In other cases, we witnessed the phenomenon of "private speech in public". The noise level is high enough so that a member can say something to himself or to another that normally would not be overheard. Thus we obtain many asides, whispered or spoken aloud, about others or us, private jokes, or interior monologue. For example, in the extract on the following page from the first group session with the Thunderbirds, we see the whole group following the verbal leader Boo, as he makes fun of another member Alvin (not present), for being dumb -- in particular, not being able to spell hurricane. In the midst of this exchange, Boo whispers to his follower, Money: ("Ask him to spell it out: Mr. Cohen"), since the norms of the group do not permit him to ask this question himself directly.

In three of the sessions, the disruption was heightened by a certain amount of hostility. At the time of the second Jets' session, members were still somewhat angry with Mr. Lewis (referred to hereafter as K.C.) because he had been found to act as a spokesman for the Cobras during the confrontation at the door (see section 4.1 below). During this session, the president of the Jets was continually calling out "Be cool, brothers!", "All right, brothers, be cool!" - with the apparent intention of producing the opposite effect. In this extract on the following page from the second group session with the Jets, we see the kind of raucous obstruction which arises when K.C. tries to bring the card game to a close. The members did not, of course, realize that such loud and disruptive behavior gave us the best record of the basic vernacular. In Cobras II, the nationalist ideology of the group led to a tense situation of a different kind: resentment against K.C.'s association with whites led to some disruption, and periodic outbursts of ritual chorus or "rifting". In Jets IV, a long session with only three

Extract from Thunderbird Group Session II

P.A.G.-4
Tapes 451-456

I.V. Who s tougher, Alvin or Larry?
Boo Larry.
Money Larry.
David
Rickey
Roger D-D-D-D-D-Dem nigger's wild!

I.V.
Boo No. And Alvin the dumbest! Alvin don't.
Money No. Alvin.
David
Rickey Uh-uh. Alvin is.
Roger Larry an' Alvin, they ust-they didn't

I.V. How come?
Boo Aks him to spell "hurricane" yesterday.
Money Alvin don't! [L] Alvin don't! [Screaming]
David
Rickey
Roger --do--they didn't fight with us. They didn't fight with

I.V.
Boo
Money
David Why? Alviinnn!!!
Rickey That's his.
Roger us. I don't know why; they jus--they turned yellow.

I.V. They did? Why?
Boo Hunh? I know. Alvinn!
Money Oh, damnn!
David
Rickey That's his.
Roger Tsk-Sometime they don't

I.V.
Boo [Aks him to spell it out: Mr. Cohen.]
Money Alvin!
David
Rickey
Roger wanna fight. You know--and sometime--dat's why they

I.V.
Boo
Money He can't spell it?
David Everybo-- Everybody alw--
Rickey
Roger don't come to c'ub meetin'. So I--I put 'em out.

Extract from Jets Group Session II

T.A.G.-5
Tapes 572-578

KC (→Grp)	Awright, man. Card game over. Okay, Brot
Rel(→)	Hey, you like--Hey, look at dat--(→Reg) Hey, quit.
Stn(→)	
Reg(→)	
Lar(→)	
Stv(→)	
Tom(→)	
Jhn(→Tnk)	Fat-man Tinkerrr! Blub
Tnk(→)	

KC (→Grp)	Card game over. O.K. Brothers. Brothers put
Rel(→Reg)	
Stn(→)	
Reg(→Pch)	
Lar(→Grp)	Card game over!!! (shouting)
Stv(→)	
Tom(→)	Say, Blackmaaan!
Jhn(→)	berrrr!
Tnk(→)	

KC (→Grp)	cards away, Brothers, put the cards back, put the c
Rel(→Pch)	Now (if) you d- (if) you don't stop, man.
Stn(→)	
Reg(→Grp)	L
Lar(→Grp)	Card game over!!! (shouting)
Stv(→Tom)	Di-di-di-di-di-di-(ta?)!* Di-di-
Tom(→)	
Jhn(→)	
Tnk(→)	

KC (→Grp)	back (intoning).
Rel(→Reg)	
Stn(→)	
Reg(→Grp)	get some more money, get five dollars and get a bag
Lar(→))	
Stv(→Tom)	di-di-di- black maaan! (singing).
Tom(→)	
Jhn(→)	
Tnk(→)	

---

* Tom (?)

members and K.C., a continual theme for insult and resentment was that K.C. had left a party on New Year's Eve and not returned -- a type of behavior which violates a fundamental rule of "belonging" in peer group behavior.

In only one session did it appear that members were conforming to a perceived normative pattern, and producing careful speech in accordance with an external norm. This was the group session with the second pre-adolescent group, the "Aces". There were only four members -- below what might be considered the "critical mass" for a first session, and there is evidence that the Aces were attempting to be "good", that is follow adult-imposed norms. This session is therefore not included in the basic data for calibrating group sessions against individual interviews.

It should be noted that both the Jets and Cobras were quite conscious of our contacts with the other group. It was frequent for the more socialized members (i.e., who perceived adult norms more clearly) to criticize members of their own groups for being too disruptive, and particularly for grabbing food "behaving like animals". They would also inquire, privately, how "the other group" had behaved when they were at Columbia or on an outing.

In general, one can characterize the group sessions as a successful means of recording the basic vernacular of the peer group under conditions quite comparable to every-day life on the streets. The major factor controlling speech was the interaction of members with members. Four constraints were present which would limit or prevent normal interaction:

1. The presence of whites.
2. The presence of adults.
3. The presence of non-members.
4. The location in a building belonging to Columbia.
5. Tape recording.

These five constraints were overridden by the more powerful set of factors operating between members. The need to excell or gain status through the use of language, and to respond to challenges from fellow members was the paramount factor. The effect of constraints 1 - 5 were reduced by free use of taboo words, participation in sports by staff members, the isolation of the location in an unpainted basement, and the seating and structures of the session which focused members' attention upon one another.

2.3. *Transcription of the data*. The total number of tapes recorded in the course of CRP 3091 and 3288 represent a very large body of speech materials. The techniques utilized to extract this data may be described briefly as follows:

1. Transcripts. Twelve individual interviews were transcribed in their entirety: three of these with complete phonological data. Three group interviews were transcribed, with all speakers transcribed from their individual tapes, and the whole synchronized on a single score.

2. Content analysis. The demographic data was extracted from all interviews. Information on peer-group and family structure was transcribed and analyzed in detail. All of the data on values, attitudes and school and family relations were extracted from the pre-adolescent interviews, and a large percentage from the teen-age interviews, although most of this data will not be discussed in this report.

3. Phonological analysis. Eight major phonological variables were studied intensively - many with a number of complex sub-categories - for all of those speakers involved in the S-G-S paradigm, for a considerable percentage of the isolated adolescents and pre-adolescents, and for a randomly-selected group of 25 adults. A typical completed phonological searching form is shown as Figure 2-10: the principles behind this procedure are discussed below, but the significance of the various symbols will be given in section 3.

4. Strange syntax. A procedure preliminary to grammatical searching was to isolate all syntactic differences between NNE and SE which we could not account for by rules already known. Frequent re-categorization of these entries yields some insight into the general nature of the rules involved. A certain percentage were investigated more thoroughly in the grammatical searching program; some can be described by fairly simple invariant rules; but many remain for further analysis.

5. Grammatical searching. Twelve major syntactic variables were the subject of a systematic program of grammatical searching, which extended to the same population of speakers as in phonological searching, and somewhat beyond. A completed grammatical searching form is shown as Figure 2-11. The nature of the procedure will be discussed below, and the significance of the various abbreviations discussed in section 3.

6. Grammatical agreement. The amount of person-number agreement in the basic vernacular was investigated in a limited number of searchings for the finite forms of *have*, *do*, *want*, *say* and *was*. The basic patterns emerged with little

Interview No. TA 29
Name Ronnie Bivens (Age 17)
Tape No. 570

Date interviewed 3/6/66
Date transcribed 9/20/66
Transcriber PC

Fig. 2-10. Phonological searching form for TA-29

[VrV]	21	11	1								4/5
[r/V]	00	00	00	00	00						00
[r]	00	00	00	00	00	00	00	00	00	00	00
[TH]	11 12	12 11	12 12	21 11	11 22	12 12	11 11	11 11	11 11	11 11	20 25
[DH]	31 33	33 31	31 31	33 23	31 13	33 33	33 31	31 33	32 33	33 31	155 145
[AY]	31	22	23	12	11	23	31	23	12	20	
[ihr]	aa	ba	aa								7/10
[ehr]	ab	ab	cb	bb	b						17/9
[ing]											

	MM	P	AM
[KˇD]	111 xxx1		x
[K°D]	1111 1	x x xxxxx xxx	:11
[VD]	1xxx : xxx x1xxxx xxxxx xxx xxxxx	1xxxx0 xx xxxxxxx	xxxxxx xxxx
[lD]	0x 1011 x 1x	1x	100 xxxxx
[sD]	1111111111111111111 1x x 111	1 1	
[KD]			

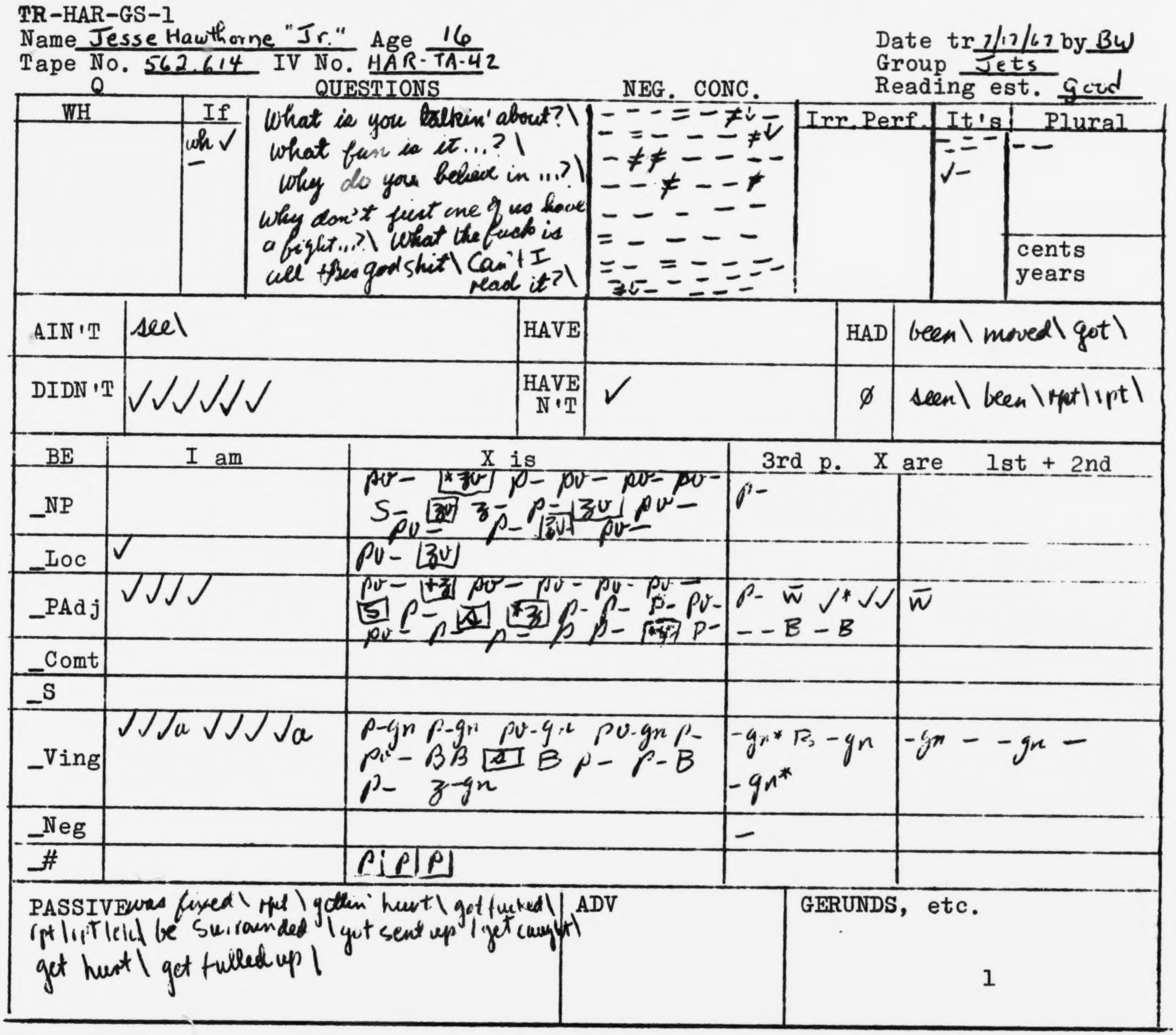
	MM	P	AM

MM	PL	VBL	POS	AD
[KˇZ]	xxxx1xx1 xx	1x 1111	xx	x
[Nz]	x1xxxxxxxxx	x xx		1x1 /
[K°Z]	xxxxxxx	11 1		
[tZ]	xxx	x11 1		
[Vz]		01x x	x0x	xxxxx
[KZ]				

MM	PL	VBL	POS	AD

	X	F		X	F	U
[work]	r	rrorr	[AY$_o$]	3	2 2 3 3	
[her]	0		[AW$_v$]	əʊ	əʊ əʊ əʊ	
[ohr]	ɔ~ɔ^	ɔ^ɔ^ʊ^	[A$_o$]	a	a a a	
[oh]	ɔ~ɔ^	ɔɔɔɔ	[A$_v$]	a	aaa	
[hw]	w		[AH$_o$]	a>	a a a (>) > >	
[en]		ɪ x	[AH$_v$]		a >	
			[OY]		ɔɪ ɔ^ə	
[m̩]			[ʎ]			
[Tem]			[YES]		mnhm hhhh hhhhh	

	X	F		X	F	U
[work]			[AY$_o$]			
[her]			[AW$_v$]			
[ohr]			[A$_o$]			
[oh]			[A$_v$]			
[hw]			[AH$_o$]			
[en]			[AH$_v$]			
			[OY]			
[In]			[ʎ]			
[Tem]			[YES]			



TR-HAR-GS-1
Name Jesse Hawthorne "Jr." Age 16
Tape No. 562.614 IV No. HAR-TA-42
Date tr 7/17/67 by BW
Group Jets
Reading est. Good

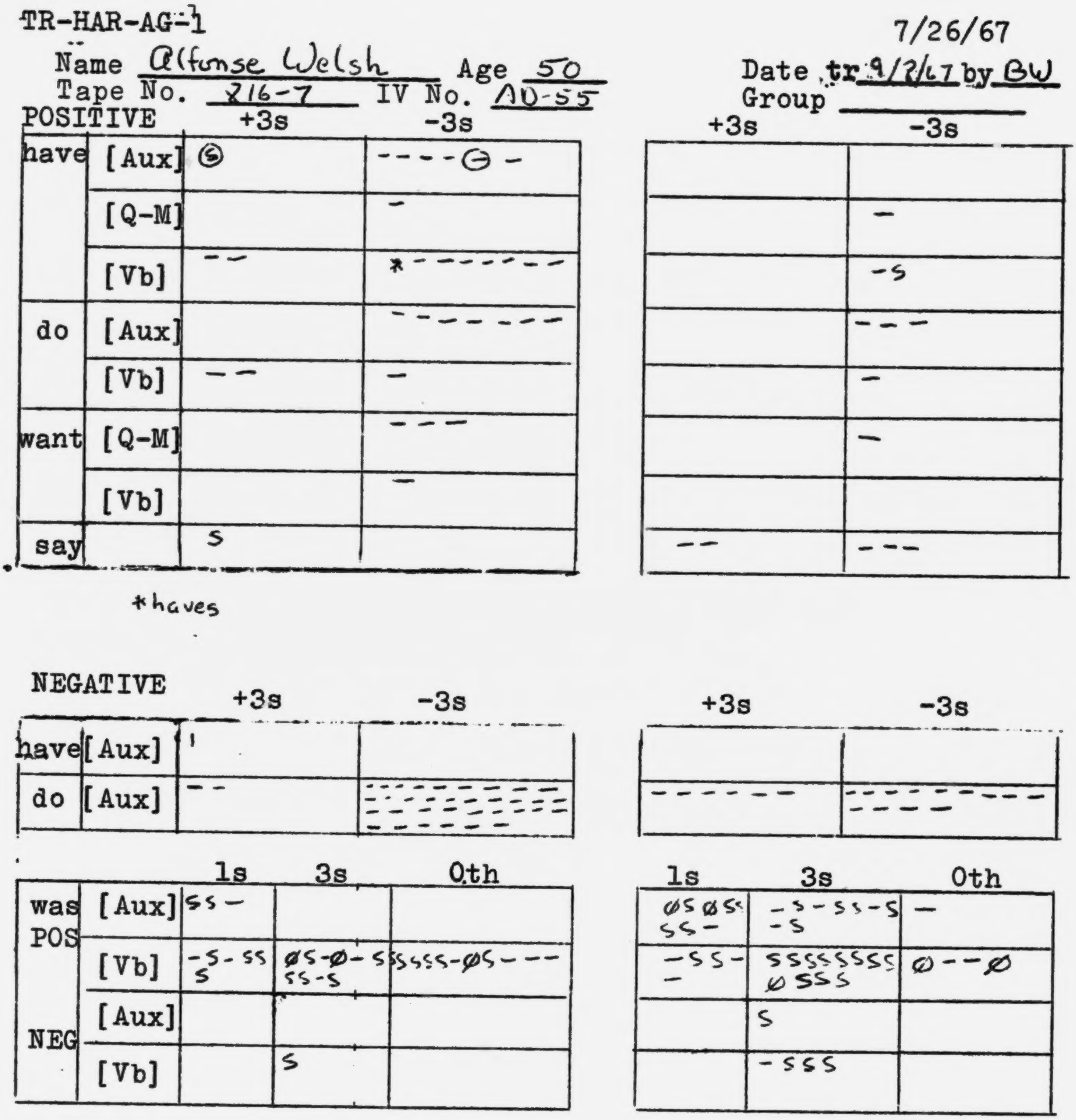
WH	If	Q QUESTIONS	NEG. CONC.	Irr. Perf.	It's	Plural
	wh ✓ –	What is you talkin' about?\ What fun is it...?\ Why do you believe in ...?\ Why don't just one of us have a fight...?\ What the fuck is all this god shit\ Can't I read it?\	– – – = – ≠✓ – – = – – – ≠✓ – ≠≠ – – – – – – ≠ – – ≠ – – – – – = – – – – = – = – – – 3✓ – – – –		– – – ✓–	– – cents years

AIN'T	see\	HAVE		HAD	been\ moved\ got\
DIDN'T	✓✓✓✓✓✓	HAVEN'T	✓	∅	seen\ been\ rpt\ rpt\

BE	I am	X is	3rd p.	X are 1st + 2nd
_NP		ρv– [*3v] ρ– ρv– ρv– ρv– S– [3v] 3– ρ– [3v] ρv– ρv– ρ– [3v] ρv–	ρ–	
_Loc	✓	ρv– [3v]		
_PAdj	✓✓✓✓	ρv– [*3] ρv– ρv– ρv– ρv– [S] ρ– [Δ] [*3] ρ– ρ– ρ– ρv– ρv– ρ– ρ– ρ– ρ– [illegible] ρ–	ρ– w̄ ✓* ✓✓ – – B – B	w̄
_Comt				
_S				
_Ving	✓✓✓a ✓✓✓ ✓a	ρ-gn ρ-gn ρv-gn ρv-gn ρ– ρv– BB [Δ] B ρ– ρ-B ρ– 3-gn	-gn* B -gn -gn*	-gn – -gn –
_Neg			–	
_#		ρ|ρ|ρ|		

PASSIVE was fixed\ rpt\ gettin' hurt\ got fucked\ rpt\ rpt\ rpt\ be surrounded\ got sent up\ get caught\ get hurt\ get fucked up\	ADV	GERUNDS, etc. 1

Fig. 2-11. Grammatical searching form for HAR-TA-42



TR-HAR-AG-1

7/26/67

Name Alfonse Welsh Age 50

Tape No. 216-7 IV No. AD-55

Date tr 9/7/67 by BW

Group ______

POSITIVE

		+3s	-3s	+3s	-3s
have	[Aux]	Ⓢ	- - - - ⊖ -		
	[Q-M]		-		-
	[Vb]	- -	* - - - - - - - -		-s
do	[Aux]		- - - - - - - -		- - -
	[Vb]	- -	-		-
want	[Q-M]		- - -		-
	[Vb]		-		
say		s		- -	- - -

*haves

NEGATIVE

		+3s	-3s	+3s	-3s
have	[Aux]	'			
do	[Aux]	- -	- -	- - - - - - -	- - - - - - - - - - - - - -

		1s	3s	0th	1s	3s	0th
was POS	[Aux]	ss -			øsøs ss -	- s - ss - s - s	-
	[Vb]	- s - ss s	øs - ø - s ss - s	ssss - øs - - -	- s s - -	sssssssss øsss	ø - - ø
NEG	[Aux]					s	
	[Vb]		s			- sss	

Fig. 2-11. Grammatical agreement form for AD-55

difficulty in this case, and extensive data was not required; Figure 2-12 shows the basic grammatical agreement form; the results are discussed in section 3.

7. Reading transcriptions. Phonological searching was applied to reading as well as to casual and careful speech. In addition, analysis of reading mistakes was carried out in some detail (see sections 4.4 and 5.).

Reading skill was calibrated with the Metropolitan Achievement Tests and Gray's Oral Reading Test, and an overall measure of reading skill based on number of errors and time required. The ability to use the -ed suffix as an indication of past tense context was studied.

8. Narrative analysis. Most of the studies of the function of language are based on qualitative studies of speech events and answers to relevant questions. The area in which systematic and quantitative analysis was carried out was the analysis of narrative. The methods and forms and data are discussed in section 4.

Many of these procedures do not need further discussion here. However, the basic quantitative methods of phonological and grammatical searching are based upon principles not generally used in linguistic analysis, and it will be necessary to explore these principles in some detail.

The principle of accountable reporting. Successful analysis of the linguistic and cultural issues depends upon proper selection of the relevant data from this material and accurate transcription of it. Much of this material shows systematic and inherent variability which has not been reported properly in the past. Since most observations were traditionally carried out in contexts where one would expect SE influence, it was naturally assumed by observers that the variation was the product of SE influence, and that a pure and homogeneous NNE existed behind the data - free from such variation. The results of our work with pre-adolescent and adolescent peer groups show that this is not the case. Therefore, methods for dealing systematically with inherent variation must be used.

The great majority of linguistic rules, syntactic constructions, morphological forms and semantic interpretations do not differ observably in NNE and SE. To write a completely separate grammar and lexicon for NNE would be a pretentious, redundant, and inadequate procedure. One would hardly wish to argue that in a phrase such as the girls I knew, NNE shows peculiar rules for the definite article, the plural of girl, the irregular past of know, or relative foregrounding; on the other hand, the rules for the deletion of that, which we do not yet understand for SE, may very well be different for NNE. On the whole, there would be little gain for either linguistic theory or educational practice to begin the task of writing an entire grammar for NNE with no reference to SE. The problems of interest are those points where NNE and SE differ: the theoretical problem is to specify the precise relationships between their rules, and the educational problem is to see what the consequences of these differences are for reading (and speaking) SE.

Accurate sociolinguistic analysis depends upon one methodological principle which may be called the principle of accountable reporting:

> A report of a linguistic form or rule used in a speech community must include an account of the total population of utterances from which the observation is drawn, and the proportion of the expected environments in which this form did in fact occur.

This principle is not limited to variable rules. It is an exceedingly simple matter to apply the principle for the great majority of categorical rules, even those which describe relatively rare forms. For example, one can quickly and simply confirm the categorical nature of the rule which declares that (1) is acceptable,but (2) and (3) are not:

(1) He's not as smart as he thinks he is.

(2) *He's not as smart as he thinks he's.

(3) *He's not as smart as he thinks he.

Any gathering of native speakers can be tested by a brief inquiry, and (judging by many trials) no one will declare that (2) or (3) are acceptable English. We are, of course, in this study dealing with one of the many cases in which the subordinate position of the dialect being studied makes it impossible to institute such direct inquiries without distortion, and all conclusions about underlying rules must be drawn from observations of the language in actual use. The problem is not insuperable. In a relatively short examination of conversation, one can state that one found 25 examples of type (1) and none of types (2) or (3). Since the analyst is now sensitized to types (2) and (3) he can also state that no such examples were heard in the course of many hundreds of hours of speech, and by extrapolation, one can expect that several thousand type (1)'s did occur. One can then include that the rule which produces type (1) and forbids type (2) is an invariant rule, without exception. The word type represents informally the population to be formally defined as elliptical comparatives in which the final element in the surface structure is the copula. Further observations of a wider range of ellipticals such as (4-6)confirm the presence of a broader invariant rule.

(4) Are you going? Yes, I am.

(5) Are you going? *Yes, I'm.

(6) Are you going? *Yes, I.

The final analysis integrates this conclusion into a large body of variable and invariant rules, in which the categorical nature of the observations above appears as a product of the categorical stress assignment rules, the categorical vowel reduction rule, and the fact that the variable contraction rule operates only upon the product of the vowel reduction rule (see section 3.4 below).

On the other hand, cursory study of a body of NNE text will show that the great majority of non-elliptical declaratives with underlying I am, are of the form (7)

(7) I'm here.

However, it frequently happens that an observer will report (8). (9) or even (10)

(8) I here.

(9) I is here.

(10) I'm is here.

Because such rare forms do exist, they are highly marked. And they have become even more marked as they have been taken as exemplars of a non-English or Creole grammar. It is not difficult to determine that (8) occurs about once in every two or three hundred cases of pre-adolescent I + cop + pred; that (9) occurs much less often; and that (10) occurs with such vanishingly small probability that no one can give any rule or procedure for locating it. It is clear that (8-10) do not represent the pattern of NNE. It is not the task of the linguist to explain or account for individual utterances. That is a psychological pursuit which could distract us from the main business at hand: to write the grammar of the language used by a speech community, rather than account for every speech variation which occurs in isolated individuals.

That is not to say that the absolute statistical frequency of forms is any indication of their importance in the grammar. We do not advocate the return to a stochastic model of language which investigates the statistical probability of one language state following another. Chomsky has clearly demonstrated the inadequacy of such a conception, and shown that most utterances of English have a vanishingly small probability of occurrence in any text. It is also true that some types of grammatical constructions are extremely rare -- yet quite important for analysis:

(11) What it is that it is that he is, is crazy.

But the total population of utterances from which (11) is drawn is also quite rare, and 11 is very high in frequency within that population - probably the only variant, though (12) is encountered:

(12) What it is that it is that he is, is, is crazy.

The problem is clearly to define the population of utterances by some reliable and systematic method.

The basic unit we are dealing with is a set of utterances which all represent the same set of meaningful choices. For example, (8-10) are all alternative ways of saying "the same thing".

Quantitative analysis is called into effect when we find inherent variability within the language being studied. It is a trivial and obvious procedure in dealing with invariants such as (1-12) above. The problem of defining a population of utterances is best illustrated by choosing a real set of alternatives in a population with more than one major variant. We take (13 - 15) as such a case:

(13) He is crazy.

(14) He's crazy.

(15) He crazy.

However, (16) is not a member of the same set, since it may represent a different intention or choice of the speaker in terms of the underlying structure.

(16) He be crazy.

We might also consider such forms as

(17) It's crazy that he is.

(18) Crazy is what he is.

(19) Crazy he is.

- since the referents of these utterances may be considered to have the same truth value as 13-16, even though their deep structure, syntactically speaking, is different. (17-19) would indeed be relevant to a study of alternant methods of foregrounding or topicalization. But they are not relevant to the axes of variation shown in (13-15) i.e., morphological condensation.

The simplest proposal is to study the population of (13-15) as a unit. The next and most obvious step is a generalization to the more abstract population

(20) He (i (s)) PredAdj

(21) NP (cop) Pred

In actual practice, one usually begins with a fairly large population such as (21), and proceeds to make smaller subdivisions as it becomes apparent that various sub-types of NP's and Predicates are relevant and show different effects upon the variable realization of the copula (see section 3.4 below). It should be evident that many of the decisions which we would make in establishing categories of populations in NNE are informed by our knowledge of English structure in general: not necessarily the structure of SE, but of all E dialects. To approach NNE as completely independent of E, and assume that any given construction such as (15) may have any arbitrary semantic and syntactic relation to (13) whatsoever, is to open the way to the wildest sort of unprovable semantic speculation, and abandon all possibility of precise delineation of the relations of NNE and SE. When we find (13) (14) and (15) alternating in the spontaneous vernacular of all peer groups, we assert that these utterances mean "the same". It is our knowledge of E which is the basis of this conclusion. It is possible that deeper studies of NNE will reveal a semantic difference, but the burden of proof is on those who would establish such a difference.

The process of differentiating larger abstract populations of utterances may actually bring us to the point where we suspect that every phonological, grammatical and even semantic difference has its effect upon the frequency of the variable rule. However, recording such fine effects as the difference between

(22) He's crazy.

(23) He's nuts.

would involve us in endless hair-splitting, with no immediate benefit to linguistic analysis. It appears that there is a discontinuity between major sub-categories such as -

+Pro + cop + Pred vs. -Pro + cop + Pred

and such fine effects as the choice of he vs. she as the pronoun.

In the same way, we can assert that (24), (25) and (26) are the same

(24) He told me about it.

(25) He tol' me about it.

(26) He to' me about it.

and that told, tol' and to' are representatives of a single population of utterances of the underlying form told. One could then analyze told as a member of one of the more abstract populations.

a. Verbs ending in -ld consonant clusters-
hold, build, etc.

b. Words ending in -old, including
bold, old, etc.

c. Verbs ending in -l#d, such as
yelled, sealed, etc.

In fact, none of these represent the optimal population for analysis: the most uniform population is the past tense of irregular verbs ending in -t,d clusters such as kept, bent, sold, etc. At the same time, the phonological shape of told is not irrelevant, and it is possible that it forms a truly homogeneous sub-class with only one other member -- sold. The choice of populations is therefore relevant to the theoretical question as to the ultimate determing factors of consonant cluster simplification.

Where preliminary observations indicate that NNE shows an invariant form differing from SE, no extensive quantitative study is undertaken. The relevant population to be described is expanded to include the largest class which is invariant. For example, negative concord applies uniformly in NNE within the clause to all indefinites, but the negative shows variation in pre-verbal position in following clauses. Thus, (27- 29) are all in the same population.

(27) Nobody never goes there.

(28) He don't think of nothin'.

(29) None of them knows nothin about it.

But 30 - 31 represent separate sub-populations to be coded for negative concord

(30) Nobody don't know nothin'. ~ Nobody knows nothin'.

(31) Nobody knows where he put nothin'. ~ Nobody knows where he put anythin'.

The basic procedure for achieving sociolinguistic accountability may therefore be outlined as follows:

a. The linguistic feature to be studied is defined as accurately as possible in terms of our knowledge of underlying E structure. If the point of interest is the traditional "double negative" we state that the variable is the appearance of more than one negative element in the surface structure when only one negative appears in the deep structure.

If the point of interest is the appearance of the copula as indicated above, it is necessary to expand our definition to include the auxiliary *be* as well: the feature is not actually the copula, but rather the finite forms of the verb *be*, whether it precedes bare predicates or verbs.

b. The number of variants which can be accurately and reliably coded are then specified. In the case of *is*, we can code reliably three variants:

F full forms: [ɪz, ɨz, əz]

C contracted forms: [s, z]

D zero form

There is no point in coding the occurences of the two contracted forms [s] vs. [z], since they are automatic and predictable. The three variants of the full form might be coded (and it turns out that such information might have been useful) but one can not make reliable decisions between these variants. In the case of *are* the situation is somewhat different:

F full form [ɑ, ɑə, ə]

C contracted form: Ø, lowering of vowel of preceding pronoun: your, their= [jɔ, ðɛ]

D deleted form: Ø

c. The set of linguistic environments in which these variants occur is then specified. In the case of the copula, we would be concerned with declarative sentences in which a lexical item in the verb phrase follows the finite form of be and is in construction with it. Thus, questions follow a different pattern, as do modals, and elliptical forms of the type, He is today.

d. The total population of environments is then subdivided into the major sub-classes which are significantly different from one another. If homogeneous sub-classes are found in which no variation occurs, these are excluded from the variable as a whole. Thus, am is split off from are and is, since it follows a completely different invariant pattern; and are and is are considered separately. In contraction and deletion, the grammatical character of the subject and of the predicate both determine a large number of intersecting sub-classes, as do certain gross phonological features of the preceding and following elements. Thus, He is crazy is differentiated from He is what they make him and from He is going. (For more details see section 3.4 below.) If the relevant sub-categories are not grasped, then many quantitative relations,which are actually quite sharp, will be obscured.

e. A numerical index is derived to express the value of the variable along one or several dimensions. In the current investigation, these indices are quite simple: usually the percentage of a certain group of variants in the total population. This is possible because most of the variation studied here, such as consonant cluster simplification, is coded as a simple two-choice, yes-no situation. In the case of the copula, we find that each sub-category is summarized as a triple: the numbers or percentages of full, contracted and deleted forms.

f. The values of the variables are then correlated with a number of larger environments: single vs. group context, or careful vs. casual style; pre-adolescent vs. adolescent vs. adult values; central vs. peripheral members of the vernacular culture; working class vs. middle class,and so on. Within the system of NNE, therefore, we will find both linguistic and extra-linguistic constraints upon the variables.

These procedures will be illustrated by the analyses in Chapter 3 to follow. The most critical steps in the analysis are not, however, the study of individual variables but the integration of the variables into a single system. If NNE does indeed form a system distinct from SE, it is necessary for us to assemble our data into coherent formal statements which can be ordered in relation to each other - and contrasted to the corresponding rules in SE.

2.4 Formal analysis of variation.

The discussion of methods and transcription in section 2.3 above, has introduced the concept of inherent and systematic variability. In this section we will discuss methods for incorporating this concept into the formal representation of linguistic rules. These methods will be utilized throughout Chapter 3 in presenting the results of phonological and grammatical analysis of NNE.

At present, we have a great deal of data which establishes the fact of inherent variability of linguistic rules, but we do not fully understand the mechanism which produces the extraordinary regularities expressed by these rules. Let us consider first some typical data. Below are shown the figures for simplification of clusters ending in -t,d for a number of the Jets in single interviews.

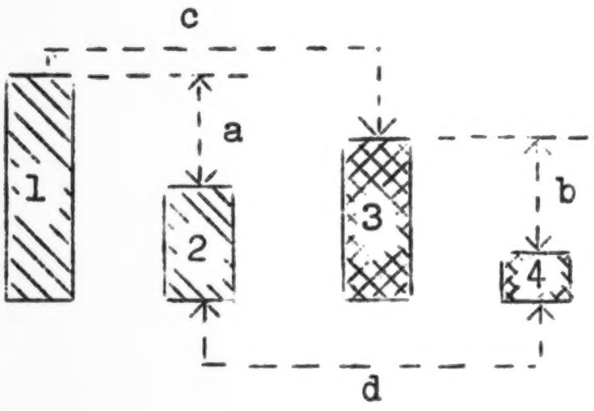
TABLE 2-6

PROPORTION OF -t,d DELETION IN CLUSTERS FOR ELEVEN MEMBERS OF THE JETS IN SINGLE INTERVIEWS

	Monomorphemic (KD_{mm})		Past tense (KD_p)	
	before consonant	before vowel	before consonant	before vowel
Stanley	19/20	7/10	2/6	0/14
Rednall	25/26	5/9	2/5	0/3
Hop	18/21	4/9	5/7	1/3
Larry	36/38	2/8	5/9	0/25
Vaughn	35/42	4/11	4/12	1/16
Doug	28/30	4/8	1/3	0/3
Tyler	16/17	4/7	1/5	0/2
Its	9/15	1/1	1/4	0/3
Stevie	21/21	2/4	7/11	2/13
Turkey	11/13	0/1	3/3	2/13
Rip	11/12	1/2	2/7	1/8
TOTAL:	229/255	34/70	33/72	7/103
°/o -t,d Deletion:	90	49	46	07

One can hardly account for the regularity of this table by invoking such "performance" factors as length of utterance, difficulty of articulation, and so on. For each individual we see that more clusters are simplified before a following consonant than a following vowel, and at the same time, more clusters are simplified in monomorphemic forms than were the -*t,d* represents the past tense.

Thus we have four inequalities:



a: 1 > 2
b: 3 > 4
c: 1 > 3
d: 2 > 4

These four relationships are universal and binding on each individual, except in the trivial cases where there is only one member in a cell. One might argue that an articulatory difficulty is responsible for the consonant vowel effect, and that this is a typical "performance" factor independent of the grammatical rules; however, the same environment produces the reverse effect on clusters ending in third singular *z* -- so that we are plainly dealing with linguistic rules specific to NNE. Furthermore, there is no way that the effect of the past-tense morpheme boundary can be construed as a simple performance effect -- it obviously shows the speaker's knowledge of the morphemic status of -*ed* in the lower frequency of simplification for past-tense clusters.

The speakers of NNE plainly "know" about the past in a linguistic sense. Why then do they not always preserve the -*ed* suffix as some SE speakers do? We might argue that some performance factor interferes with the employment of their knowledge, or that their knowledge is itself imperfect. Neither of these hypotheses add to our understanding of the regularities of table 2-6. These regular patterns are plainly the intersection of one linguistic factor (the effect of a following vowel), and another (the effect of a morpheme boundary). The result is embodied in a variable rule, of the type we shall develop below. We will see other evidence in regard to reading the -*ed* suffix which confirms that this regular variability does represent the grammatical competence of the speaker (see section 3.2).

It is still difficult for us to understand how such regularities can appear in a variable rule with such small numbers of utterances. Plainly, the monomorphemic forms before vowels, even with very few items in a cell, are centered quite closely about the 50 per cent mark; the overall figure is 49 per cent. Our immediate problem is to integrate such facts of regular behavior into a set of linguistic rules.

2.4.1. Categorical rules and optionality. All of the general assumptions about language structure which we have inherited from the nineteenth century, associate structure with homogeneity (cf. Weinreich, Labov and Herzog 1968, pp. 1-12). This concept has been further developed in almost all schools of twentieth century linguistics into a categorical view (Labov 1966e): linguistic structure is composed of elements which are discrete, indivisible, qualitatively different, essentially and conjunctively defined. Such elements are related by categorical rules which operate without exceptions in a synchronic as well as diachronic sense.

Thus the general form of the categorical rule appears in generative grammar as

(32) $X \rightarrow Y / A \_ B$

Sometimes the rule is designated as optional. In phrase structure, optional choices are generally meaningful choices--they represent the decision to say one thing rather than another. But options in transformational rules represent alternative ways of saying the "same thing",and phonological rules are even more plainly independent of meaning.

The variable behavior which we have described above clearly represents alternative ways of saying the same thing, and in traditional terms would be described by labeling the rule optional. We can represent such optionality by parentheses around the left-hand member of the rule

(33) $X \rightarrow (Y) / A \_ B$

However, if we interpret this notation as meaning no more than a label "optional", it will hardly allow us to embed into our grammar the facts of systematic variation with which we are concerned. It is no more useful than the label "free variation". It is true that we would come closer to the actual situation of NNE by writing an optional consonant cluster simplification rule than an obligatory one. But in so doing, we are only portraying NNE as a mixture of other systems -- a random pattern quite consistent with the usual conception of "dialect mixture".

However, it is not the object of sociolinguistic investigation to reduce the precision of linguistic rules, nor to add to the vagueness with which linguistic structure is perceived. Simply indicating an option is tantamount to a traditional rule of the type "frequently" "occasionally". By introducing such free variation into our rules, we make it more difficult to apply the generative notion of accountability.

If the data of Table 2-6 is to be utilized, the task is to show how the study of variation adds to our knowledge of linguistic structure, and simplifies the situation, rather than reducing the certainty of the rules by uncontrolled and unaccountable notations. In previous discussions of linguistic variables (Labov 1966e) it was required that the variable element show regular co-variation with another linguistic or extra-linguistic variable. The notion of free variation is thus constrained by the internal or external relations which are stated -- the more detailed the constraints, the more closely do we approach to the notion of homogeneous sub-classes which vary uniformly and regularly. In the present discussion, we will be considering only cases where the rule applies to discrete categories rather than continuous categories, and the variability is expressed in the frequency with which the rule applies.

2.4.2. Variable input. If we consider that the frequency with which a variable rule applies is determinate, within certain limits, and not random, we can express this concept by associating with each rule a variable frequency φ which represents the proportion of cases in which the rule is in fact applied out of the total number of cases in which the rule can possibly apply. Plainly $0 \leqslant \varphi \leqslant 1$, and the categorical rules of the type [32] are the special cases in which $\varphi = 1$. It is normally the case that rules do apply categorically, without exception, although there are a great many cases, some of which we consider here, in which some factor interferes with or impedes the full application of the rule so that it is not categorical. It is thus convenient to define the variable frequency as

(34) $\varphi = 1-k_o$

The quantity k_o is the variable input to the rule -- the factor which limits the application of the rule. With categorical rules of the type [32], it follows that there is no variable input, and $k_o = 0$. In many cases, k_o is governed by extra-linguistic factors, and may be expressed as a function of contextual style, sex, age, socio-economic class, ethnic group and so on. For example, if we examine the merger in NNE of beer and bear, cheer and chair, etc., independent of other linguistic factors, we have

(35) $$[\quad] \rightarrow ([-\text{high}]) \,/\, \begin{bmatrix} \underline{\quad\quad} \\ +\text{voc} \\ -\text{cons} \\ -\text{grave} \end{bmatrix} \text{ə}$$

That is, the rule variably lowers any high front vowel before schwa to merge with the mid vowel. The proportion of cases in which such a rule applies is $1-k_o$ where k_o is inversely proportional to age and determined by other factors as well.

2.4.3. Variable constraints. We may want to incorporate this rule with the one which merges poor and pour, lure and lore, sure and shore. However, the frequency of merger of the back vowels in NNE is much greater than the front; it is almost total in the main working-class population.

Clearly the two rules are part of a single process, and we would lose seriously in generality if we could not incorporate them into a single rule. At the same time, the variable frequencies of each rule are different: to write a single "optional" rule at this point would capture the generality of the front-back symmetry, but lose the important difference in the relative positions of the two: in the study of change in progress, it would lose the vital information about which change was leading and which following. Therefore it is necessary to allow the internal, linguistic factor of front vs. back to affect the value of φ. In this case, gravity or backness favors the merger[10]; we write

(36) $$[\quad] \rightarrow ([-\text{high}]) \,/\, \begin{bmatrix} \underline{\quad\quad} \\ +\text{voc} \\ -\text{cons} \\ \alpha\text{grave} \end{bmatrix} \text{ə}$$

where α is + for poor but - for peer. We adopt the convention that

(37) $$\varphi_{36} = 1 - (k_o - \alpha k_1)$$

The Greek letters α, β, γ range over + and - just as in the usual conventions for variable features. In the case when α is +, then k_o is diminished, φ is larger and the rule applies in a greater proportion of cases; when α is -, then k_o is increased, φ is smaller, and the rule is more limited in its application. In general, given a rule of the form

$$(38)\qquad X \rightarrow (Y) \;/\; \begin{bmatrix}\alpha fea_i\\ \vdots\\ \\ \end{bmatrix}\begin{bmatrix}\underline{\qquad}\\ \gamma fea_k\\ \vdots\end{bmatrix}\begin{bmatrix}\beta fea_j\\ \vdots\\ \nu fea_n\end{bmatrix}$$

there is an automatic reading that

$$(39)\qquad \phi = 1 - (k_o - \alpha k_1 - \beta k_2 - \gamma k_3 \ldots \quad \nu k_n)$$

The Greek letters α, β, γ represent *variable constraints* upon the rule; the conventions are so arranged that these variables mark the features which favor or promote the application of the rule. The notation $-\alpha$ before a feature will of course indicate the opposite effect--a factor which impedes or limits the application of the rule.

2.4.4. *Ordering of the variable constraints*. The constants k_o, $k_1 \ldots k_n$ can be, and are determined through empirical investigation, in the same manner as the external variables which control the input value k_o. Yet we can raise the question, *why* should one wish to determine their values? Of what linguistic interest is it that $k_1 = .36$, say rather than .39? Sociolinguistic analysis does not consist of simply obtaining more and more precise data on social differentiation or linguistic variation, but rather on showing more clearly the internal and external relations of the elements of the rules, i.e., the factors which govern the use, structure and development of language. Not only the order of the rules, but ordering of elements within rules is the object of investigation. It will be shown that the order of the linguistic variables is crucial in determining relations between rules, and this order is an important element in the linguistic competence of the speakers. Although this report is not concerned with problems of linguistic evolution, it is worth noting that re-ordering of variables within rules appears to be an important mechanism of linguistic change. The quantitative values of the constants are not always of critical importance, but the over-all fit to a given model shown by the ordering of the variables will be important. Furthermore, as ϕ approaches 1.00 or .00, small changes in the values of the variables suddenly convert the rule from a variable rule to what is in effect a categorical rule. In this report, we will not consider a rule with $\phi = .97$ or .98 to be a variable rule. Instead, these will be called "semi-categorical" or Type II rules, in which the expectation of regularity is great enough to make exceptions or violations reportable (see section 2.5 below).

There are three possible models of the relations between variables: (1) that they are strictly ordered in their effects upon the application of the rule, (2) that they have approximately the same effects, and (3) that they have no fixed order of magnitude or relative magnitude at all. The last conception is equivalent to the notion of "free variation" considered and rejected in section 2.4.2., and although it is alien to our finding of systematic and regular variation, there may indeed be cases where we fail to find any consistent pattern in the relations of the variable constraints. In cases where

(40) $$Z \rightarrow (W) \ / \ [\alpha \mathrm{fea}_i] \ \underline{\quad} \ [\alpha \mathrm{fea}_j]$$

Such cases do indeed occur, but the more general situation is the first case.

It is a common practice in sociology and other fields to assemble large bodies of statistical evidence which are used to establish a series of unrelated qualitative relations. Thus a great mass of quantitative survey data may be used to establish the weak qualitative finding that the more highly integrated a housing project, the more positive the resulting attitudes of whites towards Negroes. Similarly, our own quantitative data of Table 2-6 could be summed up by the statements (1) a following consonant favors consonant cluster simplification of clusters ending in -t,d and a following vowel has the opposite effect; (2) the existence of a morpheme boundary in the cluster (separating the -ed suffix from the root) disfavors simplification, while the absence of a boundary favors the rule. Thus we could write

(41) $$-\underline{t,d} \rightarrow (\emptyset) \ / \ \beta \# \ \underline{\quad} \ [\alpha \mathrm{cons}]$$

where

(42) $$\varphi_{42} = 1 - (k_o - \alpha k_1 - \beta k_2)$$

To leave the statement at this stage is equivalent to giving two qualitative, unordered relationships which do not establish any fixed relation between k_1 and k_2. (42) is a single rule only by a notational convention, not by any inherent relationship stated within the rule relating α and β. In this report, we will attempt to establish such relationships and integrate the various statements about the variable constraints into a single coherent rule. We will not always have sufficient data to order all of the variables, but the important cases will be handled in this way.

There are many interesting and important empirical questions concerning the degree to which the variable constraints are ordered. The strongest position is that these constraints would show a postulate of geometric ordering. Informally, this notion is that there is a hierarchical ordering of the constraints such that if a given variable is +, and therefore favorable to the rule, it will outweigh all the other variable constraints lower in the hierarchy, even if they are all -, or unfavorable. To state this concisely, the following convention is useful. $\varphi_r(\chi)$ will indicate the frequency of application of rule in that subset of cases where the feature χ is present, or +. The complementary set is $\varphi(\sim\chi)$, where the feature χ is not present, or -. Furthermore, the order in the hierarchy will follow the order of the Greek letters α, β, γ.... The postulate of geometric ordering therefore establishes that in all cases.

(43) $\varphi(\alpha) > \varphi(\sim\alpha)$

More generally, the postulate can be expressed formally as

(44) If $\chi_1, \chi_2, \ldots \chi_n$ are variable constraints upon a rule r, then for any given $\lambda_1, \chi_2, \ldots \chi_{i-1}$,

$\varphi_r(\chi_i) > \varphi_r(\sim\chi_i)$.

The subscripts on φ will be used only when the possibility of ambiguity is present.

A set of geometrically ordered variable constraints forms a tree, of the sort that has been displayed for certain low-level phonetic characteristics such as vowel length. In House 1961, we find such a tree, displaying geometric ordering for the effect upon vowel lengths of (α) voicing of the following consonant, and (β) tensing of the vowel. The third variable constraint--the openness of the vowel, shows some departures from geometric ordering--a few cases where neighboring sub-sets are equivalent but not overlapping. Independent of any particular quantitative data, we can generate geometrically ordered trees, such as Figure 2-13, by setting $k_0 = 1/2$, $k_1 = 1/4$, $k_2 = 1/8$.....

In Figure 2-13 (see following page), it is evident that the critical ordering occurs between cross-products: i.e., where one constraint is favorable and the other is unfavorable. These relationships, which express the hierarchical nature of the ordering, may be symbolized as (45): where α is favorable, and β is unfavorable,

(45) $\varphi(\alpha, \sim\beta) > \varphi(\sim\alpha, \beta)$

the rule applies in a greater proportion of cases than where α is favorable and β is unfavorable. If the cross-products are equal, we are dealing with equivalent constraints, a situation described in a rule such as (40).

Fig. 2-13. Geometrical ordering of variable constraints

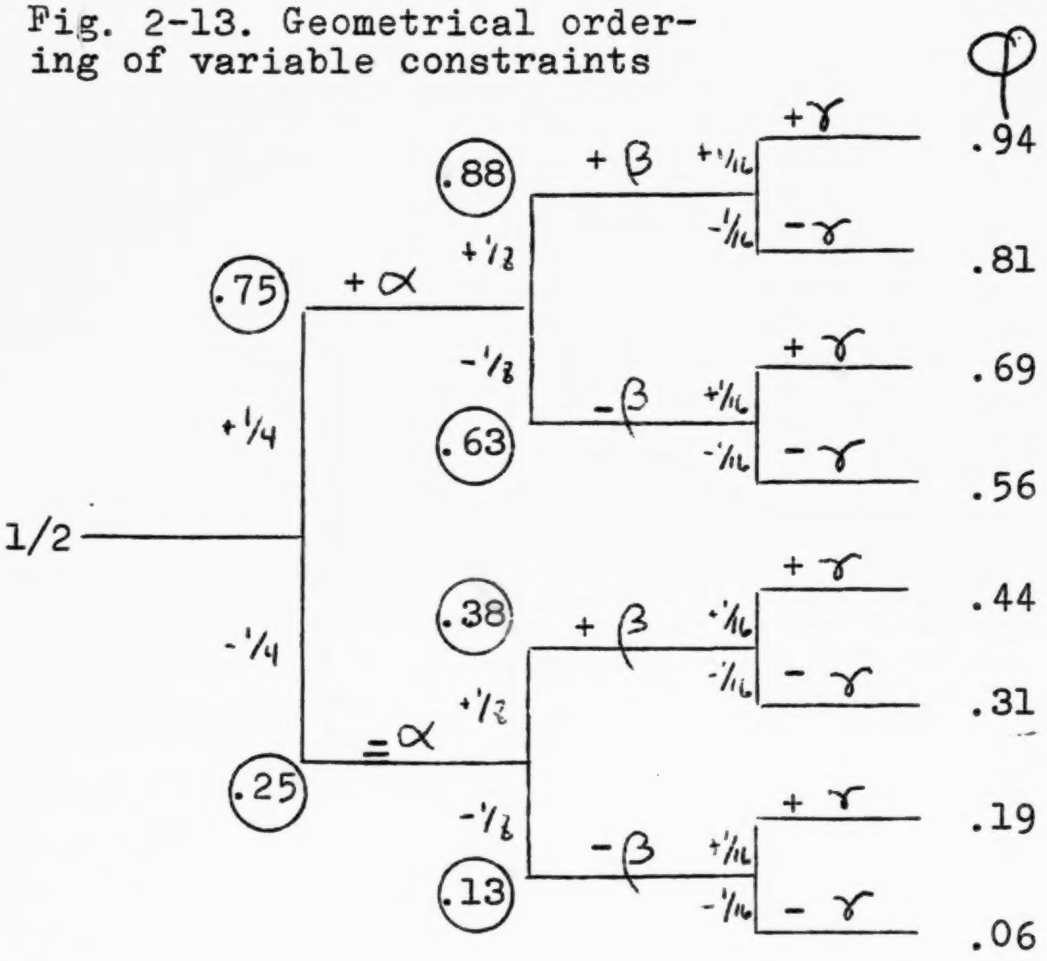

φ
1/2
+1/4
-1/4
.75
.25
+α
=α
.88
.63
.38
.13
+1/8
-1/8
+β
-β
+1/16
-1/16
+γ
-γ
.94
.81
.69
.56
.44
.31
.19
.06

Fig. 2-14. Equivalence of variable constraints

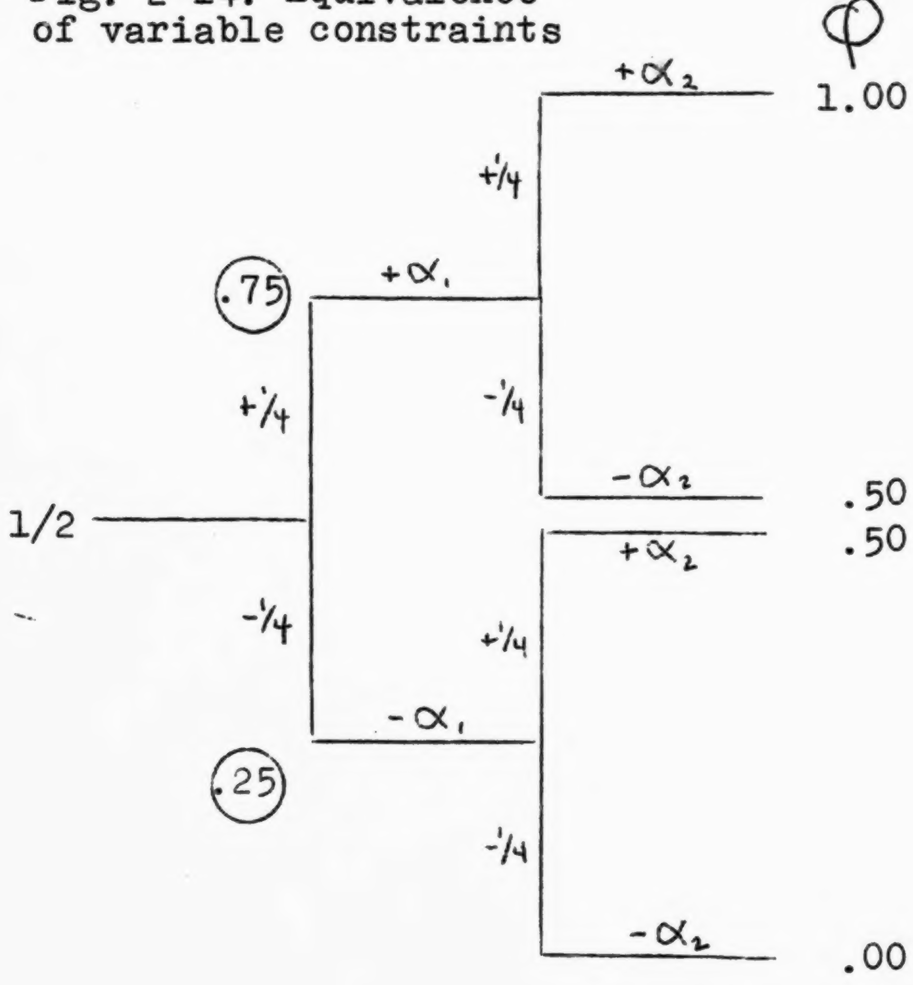

φ
1/2
.75
.25
+1/4
-1/4
+α₁
-α₁
+α₂
-α₂
1.00
.50
.50
.00

Figure 2-14 (on the preceding page) shows the kind of ϕ-distribution characteristic of such equivalence.

As Table 2-6 indicates, the relations symbolized by α and β are quite binding, and the data for each individual shows the ordering involved for relatively small numbers of cases. For example, given four or five cases of monomorphemic *-t,d* clusters before consonants, and four or five before vowels, we are almost certain to show more simplification in the first case than in the second. But the higher order relationships which concern the position of these constraints within the hierarchy are not so uniform. For several peer groups, we will find that the model of Figure 2-13 applies to *-t,d* deletion, yet for other groups Figure 2-14 applies. The position of the variable constraints within the hierarchy may indeed shift from formal to casual style. Most importantly, there is development and change within trees such as Figure 2-13 as the individual moves from adolescent to adult status; as we will see, the most characteristic and important change is a rise in the importance of phonological constraints such as the influence of a following vowel. There is reason to believe that changes in the hierarchy of constraints represent a basic mechanism of linguistic change, as it affects a whole community, as well as individuals within the community. The formal conventions of variable rules given above will enable us to deal with change and adjustment within the community, to carry sociolinguistic analysis to the limits of our current data, and pose crucial questions for further investigation.

The convention of strict geometric ordering also has a natural interpretation if there are no linguistic variables and no extra-linguistic variables affecting the input constant k_o. If k_o is set at 1/2, then $1-k_o = 1/2$, that i.e., the rule applies 50 per cent of the time. This would be the case for any variable process in which there were many variable constraints, no one significantly greater than any other, as in the flip of a coin which yields 50 per cent heads. "Free variation" would then be an apt description of any variable rule for which ϕ approaches 50 per cent as the number of trials becomes indefinitely large, without any major variable constraints. However, other factors may set the input constant at a higher or lower figure; obviously this is one possibility in the course of linguistic change, where k_o may decline with age, in the presence of other constraints, until ϕ reaches a point sufficiently close to 1.00. In the additive conventions used here, it is obvious that variable constraints which add to more than 1.00 or less than 0.00 apply vacuously beyond these limits, since $0 \leqslant \phi \leqslant 1$.

2.4.5. *The invariance condition*. In the usual notation for categorical rules, the environment / ___ [+fea_i] means that the rule always applies for that subset of sentences in which [fea_i] occurs in that position, and never applies for the subset where [fea_i] does not occur. In other words, $\varphi(fea_i) = 1$, $\varphi(\sim fea_i) = 0$. For variable rules, the notation still allows us to register the fact that the rule never applies in certain cases. Thus in (35), the rule never applies to raise segments which do not contain the feature [vocalic]; for any segment containing [-vocalic], the rule simply does not apply. On the other hand, it is *not* true that the rule always applies if the feature [vocalic] is found; for a variable rule, application is then governed by the set of variable constraints marked with Greek letters. The meaning of / ___ [αfea_i] is that the rule applies in the proportion of cases $1 - (k_o - k_1)$ in that subset of sentences where [fea_i] occurs, and $1 - (k_o + k_1)$ in the subset where [fea_i] does not occur; more concisely, $\varphi(fea_i) = 1 - (k_o - k_1)$, and $\varphi(\sim fea_i) = 1 - (k_o + k_1)$. But so far we do not have any means for registering the third possibility--that a rule which is otherwise variable will *always* apply if a certain feature is present.

It does indeed happen that a given variable rule becomes categorical in the presence of a certain feature. This is the case, for example, for the copula deletion rule (section 3.4) when the contracted copula follows a sibilant. Thus

$$(46) \qquad z \rightarrow (\emptyset) \; / \begin{bmatrix} -\beta_1 V \\ \gamma pro \\ *strid \end{bmatrix} \#\# \_\_\_ \#\# \begin{bmatrix} \alpha Vb \\ \beta gn \end{bmatrix}$$

The symbol * is the *invariance condition*. It signifies the fact that when a sibilant precedes the contracted *z*, the *z* always disappears--that is, the factor which limits the rule goes to zero, and $\varphi = 1$. There is a simple convention for interpreting the invariance condition as follows which may be incorporated into our most complete expression for the automatic interpretation of invariable rules. A variable rule of the form (47)

$$(47) \qquad X \rightarrow (Y) \; / \begin{bmatrix} \alpha \text{fea}_i \\ \vdots \\ {*}\text{fea}_x \end{bmatrix} \begin{bmatrix} \overline{} \\ \gamma \, \text{fea}_k \\ \vdots \end{bmatrix} \begin{bmatrix} \beta \, \text{fea}_j \\ \vdots \\ \nu \, \text{fea}_n \end{bmatrix}$$

is interpreted as applying in the proportion of cases expressed by

$$(48) \qquad \varphi = 1 - \left(\frac{-1{*}1}{-2}\right)(k_\circ - \alpha k_1 - \beta k_2 \ldots \nu k_n)$$

Thus if the feature $[\text{fea}_x]$ occurs as +, the invariance factor is $\frac{-1-(+1)}{-2} = 0$, the entire variability factor then goes to zero, and $\varphi = 1$. But if $[\text{fea}_x]$ occurs as -, the invariance factor is $\frac{-1-(-1)}{-2} = 1$, and the value of φ is unaffected. Thus the expression $\frac{-1{*}1}{-2}$ is a device for converting +,- values into 0,1 values; it is the formal equivalent of the statement that * represents a factor which converts a variable rule into a categorical one. Thus in the case of (46), whenever a strident consonant precedes the contracted *z*, the *z* is always deleted. When the preceding segment is not strident, the rule applies with the usual variable constraints. More generally, we can state that the symbol * has the property that for all rules,

$$(49) \qquad \varphi({*}) = 1; \quad \varphi({\sim}{*}) = \varphi$$

The range of possible notations can be shown in the following array

Rule contains the notation	$\varphi(fea_i)$	$\varphi(\sim fea_i)$
$+fea_i$	φ	0
$-fea_i$	0	φ
αfea_i	$1-(k_o-k_1\ldots)$	$1-(k_o+k_1\ldots)$
$-\alpha fea_i$	$1-(k_o+k_1\ldots)$	$1-(k_o-k_1\ldots)$
$*fea_i$	1	φ
$-*fea_i$	φ	1

2.5 Types of rules.

The discussion of 2.4 presents two types of rules: categorical and variable rules. We may, however, distinguish two types of categorical rules: those which are never violated and those which sometimes are. The latter will be called "semi-categorical". This typology applies to a wider range of data than linguistic behavior alone: any form of social behavior which we understand well can be described in these terms. In the balance of this report, the categorical rules will be termed Type I; semi-categorical, Type II; and variable rules, Type III.

Most linguistic rules are Type I. Because they are never violated, they are difficult to locate. Most social discussion of language, in school rooms and outside, is concerned with Type II rules and their violations. These violations, such as _My brother is more older than me_, are reportable and socially significant. But Type I rules are invisible. For example, the Type I rule which dictates the conditions for contraction is never violated to produce such utterances as *_He's as smart as I'm_. When we write *_He's as smart as I'm_, with an asterisk, we can mean any or all of the following:

a. This utterance is not 'used' in speech, though it may be 'mentioned'.

b. If it is constructed as a violation, or deliberately uttered by a linguist as if it was being 'used', the native speakers listening have no means of interpreting the violation. They do not know what it "means" to say this.

c. Native listeners therefore account for the utterance by saying that it is made outside of the rules of English; that the speaker is probably a foreigner; that one "cannot say that in English".

On the other hand, Type II violations *are* heard, *are* interpreted, and "can be said" in English. For example, there is a Type II rule against foregrounding complements which are in direct construction within the verb phrase. *I asked for good luck for a long time*, allows us to foreground the time adverbial: *For a long time I asked for good luck*; but we cannot foreground the inner complement: *For good luck I asked for a long time*, without changing the meaning. Here, *For good luck*, is interpreted as a manner adverbial, which can be foregrounded, not as a direct object, what the speaker asked for. However, one can violate this rule--*For money I hoped*; *For bananas I asked*; *For everything we yearned*... Native listeners, when they have to interpret the foregrounded item as a direct object, interpret the violation as somewhat stilted or extreme, or a literary emphasis--not at all outside of the bounds of English. Furthermore, Type II violations such as, *This is my twoth banana*, are *reportable*: that is, their occurrence are rare enough to be worth reporting to someone else, and the appropriate response is, "He did? He said that?".

Type III, or variable rules, cannot be violated by any single act or utterance. These rules are known to the analyst as a result of his investigations; they may be sensed by naïve native listeners, but not consciously. Actions or utterances governed by Type III rules give us information about the speaker. If we already know a great deal about the speaker, the variability open to him under the rule may be so restricted that his usage can violate our expectation and seem reportable: that is, the rule is Type II for him. For example, negative concord is governed by a Type III rule. We all know that English speakers use non-standard negative concord (double negatives: *He don't do nothing*) and that other speakers do not, and that this is somehow correlated with style, context, sex, age, education, and the like. One could not report the use of a double negative as an incident worth telling in itself:

A: You know what I just heard a guy say? "He don't know nothing." *Not* B': *He did?

Thus responses which are natural for Type II rules are absurd for Type III and vice versa. Thus Type III rules are not reportable. If, however, we constrain the context sufficiently, we can report:

A: You know what I heard our president say at a banquet? "You guys don't know nothing."

B: So what?   B': He did?

Here our native knowledge of the Type III rule constrains our expectations of formal educated speech so sharply that it becomes rare and reportable even for double negative concord to appear here. Plainly the reportability of an event cannot be separated from its frequency. Utterances or events which occur in less than 1 or 2 per cent of the total population of utterances in which they might have occurred, are quite different from those which appear 5 or 10 per cent of the time.

This characterization of linguistic rules will be utilized at various points throughout the following sections. In the section which reports structural differences, we will explore a great many Type III rules as well as Types I and II, using the methods outlined in 2.4.

CHAPTER III

RESULTS: STRUCTURAL DIFFERENCES BETWEEN NON-STANDARD NEGRO ENGLISH AND STANDARD ENGLISH

This chapter presents the major results of our linguistic investigation of NNE phonology, morphology, and syntax. The implications of these structural differences for reading and for teaching standard English are considered briefly in section 3.10, and in greater detail in Volume II; in sections 3.1 through 3.9, the description of the characteristic rules of NNE is presented as the product of a purely linguistic analysis. Some of these findings will reflect the sociolinguistic structure of the Harlem community, and there are a number of sub-sections on the sociolinguistic stratification of particular features. This data will provide the background needed for the study of the use of NNE and SE in Volume II.

However, without considering these further studies, we believe that the results reported here have considerable importance for linguistic theory in general. They provide the substance which illustrates how the formal developments presented in 2.4 are used to handle a large body of data. Although only a part of the material available in our records has been analyzed, it is the largest single body ever gathered on systematic and inherent variation within a speech community. It will immediately become apparent that the traditional categorical approach to linguistic rules will not accommodate this data. If we were to view the speech of Harlem peer groups as an unstructured mixture of SE and some hypothetical, invariant NNE, we would be forced to conclude that there are no speakers of NNE. The systematic structure of NNE, its logic and internal equilibrium, would be hidden from any empirical investigation. The results of this chapter will document the need to incorporate the concept of systematic variation into the fundamental linguistic notion, 'rule of grammar'.

3.1 Some phonological variables of NNE
3.2 Simplification of -t,d clusters: reading the -ed suffix
3.3 The -s,z inflections
3.4 Deletion, contraction, and inherent variability of the copula
3.5 The verbal paradigm
3.6 Negative attraction and negative concord
3.7 Questions
3.8 Some other syntactic variables of NNE
3.9 Memory tests
3.10 An overview of the relations between NNE and SE, and some educational applications

3.1. Some phonological variables

Most of the studies of structural differences between SE and NNE do not deal with phonological matters in the simple sense, but rather with phonological variables which intersect with grammatical variables, or with purely syntactic matters. However, there are a certain number of phonological variables which have no grammatical status, or a relatively indirect one. In this section, we will consider some characteristic phonological variables, their distribution across the various NNE vernacular groups, contrasts with the adult and white groups, and the way in which these variables behave with change of contextual style. In this way, we will be drawing a sociolinguistic profile of NNE, and comparing its structure to the type of sociolinguistic variation which we find in the New York speech community as a whole in *The Social Stratification of English in New York City* (Labov 1966a-- hereafter referred to as SSENYC).

3.1.1. *The (th) and (dh) variables*. One of the most stable sociolinguistic variables in American English is the realization of the "th" consonants. In general, there is no question that the prestige forms are the fricatives; the affricates have an intermediate value; lenis unaspirated stops are stigmatized, and full stops equivalent to [t^h] and [d'] are highly stigmatized. Dialect literature and conventional naive views of this variable refer to "deses", "dems" and "doses", and it is the general impression that some speakers always use these forms. However, in the white community there are no native speakers of English who always use stops or affricates, and the same situation prevails in the NNE dialect that we are now studying. No matter how high the index of affricates and stops becomes, every speaker that we have studied sometimes uses fricatives, even in the most spontaneous and excited interaction.

One indication of the fact that this variable shows inherent and systematic variation is the absence of hypercorrection. We have no recorded cases of such hypercorrection as *thoun there* [ðaʊn ðɛə] for *down there*. We have no cases of hypercorrection which would lead us to *he climbed a three* [θri] for *he climbed a tree*. In other words, the speakers of the language know which is the variable class and which is the invariant class.

In approaching the (th) and (dh) variables for NNE, we find that there are some striking differences between WNS and NNE. It is well known that final -*th* alternates with -*f* for NNE speakers, as with Cockney speakers in England.[1] However, there are no cases of initial *th*- being replaced by *f*, which is common in England. The comparable situation among the voiced elements is that [ð] is replaced by [v] and here, of course, we do not have any cases of the same shift in the initial position. We also find occasional replacement of inter-dentals by labio-dentals in medial position, as in *here goes nuffin'* or [favə] for *father*.

It is possible that there is a shift in the point of articulation involved here which helps to explain the substitution of labio-dentals. We find from previous studies that most Negro speakers habitually use a dental or pre-dental *t* and *d*, while WNS speakers in New York City use either an alveolar or blade-affricated *t,d*. On the other hand, whereas WNS speakers use a pre-dental (or possibly inter-dental) *th* and *dh*, Negro speakers often pronounce inter-dentals with the tongue protruding well between the teeth. This structural shift may possibly lead to a greater likelihood of substitution of inter-dentals. On the other hand, it is much more likely that the substitution of *-f* for the inter-dental fricatives is a matter of acoustic similarity. The mellow [θ] and [ð] are extremely low in energy, and the [f] and [v] are somewhat higher. In fact, this low energy level makes it impossible for us to make accurate judgments of [θ] versus [f] on even the best tape recordings; reliability is so low in this matter, that no quantitative studies were made for this report. At the same time, it should be emphasized that it is widespread and natural procedure for NNE speakers to use final [f] in place of SE final [θ], and any perception test which does not take this into account will give a very odd picture of the auditory capabilities of Negro children.[2] Again, we find no hypercorrection; despite the high frequency of substitution of final [f] for SE [θ] we do not find hypercorrection the sort *he fell [ɔθ]*, or *I [ɨɪð] here*. Again, we see that speakers of the language can distinguish a variable class in which [θ] alternates with [f] from the constant class with invariant final [f], and the variable class in which [ð] alternates with [v] from the word class of *live* which never alternates.

Our quantitative studies of the (th) and (dh) variables were therefore confined to initial position, and it is natural that figures would be slightly higher than for the SSENYC in which medial and final position was included. We are not interested in absolute numerical figures of course, but rather in the relative indices for various groups and the direction of shift.

Table 3-1 shows the (th) and (dh) indices for various peer groups, adults, and the white Inwood groups for several styles.

TABLE 3-1

MEAN (TH) AND (DH) INDEX SCORES FOR PEER GROUPS AND ADULTS

	(th) Contextual style			(dh) Contextual style			
	A	B	D	A	B	C	D
Thunderbirds (8)	52	86	80	139	114	57	70
Aces (4)		113	75		144	92	108
Lames (17)		90	75		139	29	67
Cobras (9)	71	67	30	148	135	57	37
Jets (13)	79	58	43	147	133	60	38
Adults							
Middle class (14)		(22)	11	32	19		17
Working class --upper							
Northern (4)	46	33	67	111	108		67
Southern (4)	13	14	08	78	67		22
Working class --lower							
Northern (7)	25	10	00	134	116		50
Southern (7)	14	32	36	84	99		42
Inwood (6)	66	81	30	160	114	54	33

Style A: Group or casual
B: Single or careful
C: Reading style
D: Word lists

No. in parentheses after group indicates no. of subjects in B.

The values of the variables were

(th-1)	[θ]	(dh-1)	[ð]
(th-2)	[tθ]	(dh-2)	[dð]
(th-3)	[t]	(dh-3)	[d̥]

Both indices are computed as

$$\frac{\Sigma - N}{N} \cdot 100$$

where Σ is the sum of the numerical value of the variables, and N is the total number of occurrences. Thus (th) -00 represents the consistent use of [θ], and (th) -200 would represent consistent use of [t].

First of all, we note that the (th) totals are lower than (dh), less regular, and do not show as much shift downward with change of stylistic context. This contrasts with the pattern of the white community where we find that (th) and (dh) are extremely similar--see Figures 3-1 and 3-2 taken from pp. 246, 253 and 260 of SSENYC.

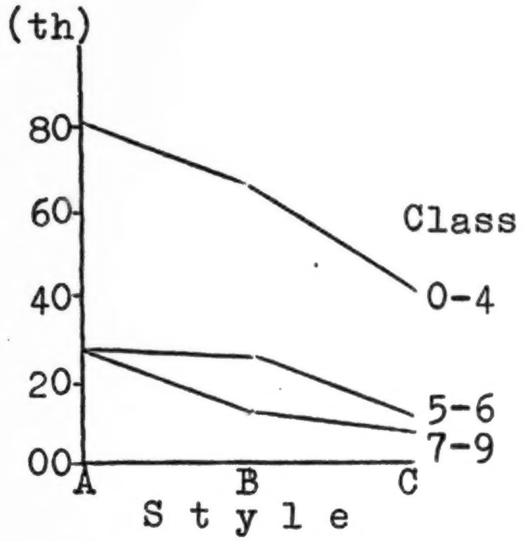


Fig. 3-1. Class stratification of (th) in New York City

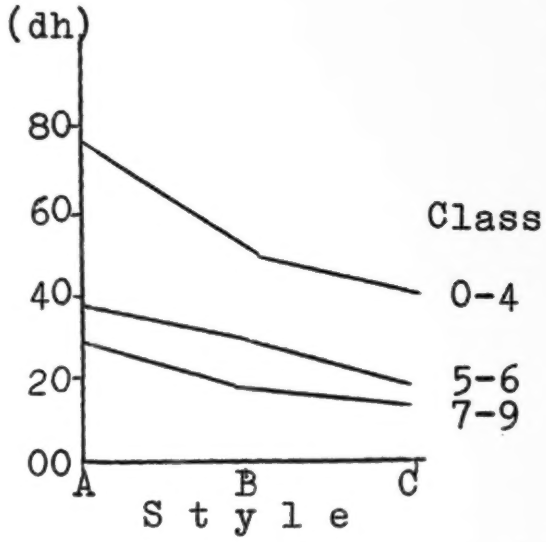


Fig. 3-2. Class stratification of (dh) in New York City

It must be remembered that (th) is not exactly comparable to (dh) for Negro speakers because [θ] alternates with [f] in medial and final position, much more frequently than [ð] alternates with [v], and even though we are considering only initial position here, it is plain that the parallelism between (th) and (dh), characteristic of the white community, does not prevail. Furthermore, we find that Negro speakers use a great many affricates for (th), (th-2), but that the prevailing form for (dh) is the stop, (dh-3). This lack of parallelism of (th) and (dh) for Negro speakers is shown most clearly in Figures 3 and 4 from the discussion of SSENYC, p. 645. Here we see that (dh) levels are much higher and show much sharper decline (that is, shift toward the prestige forms from speech to reading). This data is based on a relatively small number of 21 out-of-town Negro adult speakers, but it agrees well with the more definitive data which we have gathered from our present work. In studying Table 3-1, we find that the pre-adolescent Thunderbirds do show a very definite stylistic shift from casual speech (dh)-139 to single interviews (dh)-114 to reading (dh)-57 However, this stylistic shift does not continue with isolated words, which show a little higher (dh) index than reading sentences. This result is not difficult to interrupt, since the stylistic continuum reflects the amount of attention paid to speech. Many of our subjects are such poor readers that the sentences are frequently read as isolated words; the word lists are read somewhat easier, because most of the words are quite familiar, and if the reader is wrong, there is no context to puzzle him. In any case, it is plain that the frequency of non-standard (dh) forms is a reliable and consistent phonological marker for Negro subjects. At a very early age, speakers have the conscious or unconscious knowledge that one uses more fricatives in more careful speech, and they have no difficulty in recognizing this variable (dh) class as opposed to the /d/ class.

Another interesting aspect of the (dh) variable is its extreme comparative regularity. A large number of speakers show (dh) values of about 150, though some show lower figures. For example, we find that the five Thunderbirds present in second group sessions show values of:

Boot	129
Roger	163
Money	80
David	161
Ricky	161

The most constant aspect of (dh) behavior is the downward shift of style B to C. The regularity of this shift can be shown as follows for the data utilized here.

	B > C	B=C	B < C
Thunderbirds	7	1	-
Lames	10	-	3
Aces	3	1	-
Cobras	5	-	-
Jets	10	1	1
Inwood	5	-	-
	40	3	4

The most important result in Table 3-1 is the differentiation of the lames from the peer-group members. These lames are isolated individuals and include four boys from 1390 Fifth Avenue that we know are definitely not members of the dominant peer group, but are influenced far more heavily by a restricted home environment. There are also twelve individuals from the Vacation Day Camp series, and as pointed out in section 2.1, there are many reasons why this group shows less connection with vernacular culture than the peer groups. It is interesting to note that the values for speech are quite comparable with those for the Thunderbirds and Aces. But the lames show a much greater drop of (dh) in reading and as shown in Chapter 5, they are, on the average, much better readers than the peer-group members. Again, we find that style D is intermediate.

When we turn to the (th) and (dh) variables as used by adolescents--the Cobras and Jets--we see essentially the same picture. (th) levels are of the same order of magnitude, but we find regular stylistic stratification: group sessions show the highest indices, there is a slight drop to single interviews, style B, and a sharper drop to word lists. In the case of (dh) we again find the same order of magnitude, with casual speech beginning at the extraordinarily uniform mode of (dh) -150, falling off slightly in single interviews, and falling very sharply with reading styles. Here, however, style C (reading) is definitely higher than style D (word lists), so that it is obvious in some respects that the adolescents have approached closer to the adult New York City norms shown in SSENYC.

The adult sample gives us a view of the mature, well-formed sociolinguistic structure which is parallel to the data given in SSENYC. Figure 3-3 shows the (dh) pattern of the adult Negro community

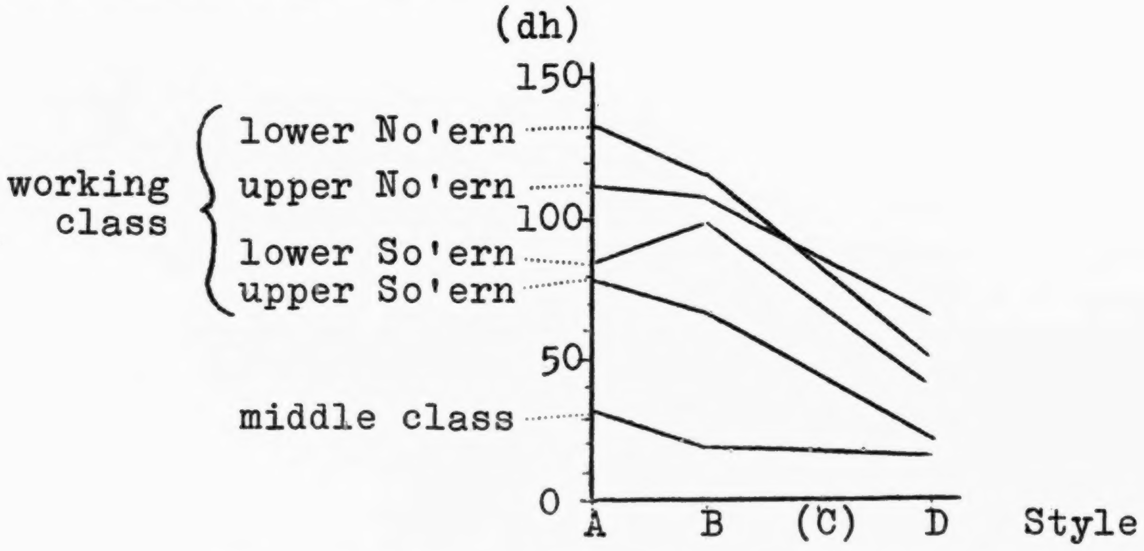


Fig. 3-3. Social and geographic stratification of (dh) for adult Negro speakers

and may be contrasted with the (dh) pattern of New York City as a whole. In Figure 3-2, it is obvious that Northern and Southern speakers alike show regular stylistic stratification for (dh), although the drop from casual to careful speech is quite small for the working-class groups and even reversed for the lower-class Southern groups. The composition of the Harlem sample is, of course, quite different from that of the SSENYC sample. The large working-class group is divided into an upper section which would parallel the lower middle-class and the upper section of the working class in SSENYC. These include speakers with high school educations who are engaged as stock clerks or in skilled occupations. The lower section of the working class consists of those with less than a high school education who are engaged in unskilled occupations or who are on welfare. Furthermore, we have to separate for some variables, those raised in the North from those raised in the South. From Table 3-1, we see that the lower-class Southern group does not show the pattern of stylistic shift characteristic of the other groups. All of these findings are consistent with the general view that patterns of stylistic stratification become clearer as a speaker enters the adult community and that they are clearest (because established earlier in life) for the higher status groups. At the same time, it should be obvious that the peer groups who cannot read well, still have relatively clear patterns of stylistic shifting in passing from style B to C.

Table 3-1 also shows that (th) is not an important sociolinguistic variable for adult speakers. We see no clear evidence of regular style shifting of the group as a whole. There is an extraordinary amount of individual variation; some individuals use only fricatives, and others use a great many affricates in formal style. We can find some explanation for this fact when we see that the adult (th) indices are very low, and that Southerners use mostly fricatives. The moderate use of affricates and stops by the peer groups represent the acquisition of the Northern working-class pattern. Thus, the parallel treatment of (th) and (dh) is essentially a white phenomenon which is being acquired only slowly in the Northern ghettos.

Finally, we can examine on Table 3-1 the (th) and (dh) pattern of the comparable white working-class youth, the Inwood groups. Both pre-adolescents and adolescents will be grouped together in this and other phonological analyses. The pattern is almost identical with that of the Negro peer groups in respect to both (th) and (dh). There is regular stratification with (dh) across all styles, and it may be remarked that the pattern holds for almost every speaker. In the case of (th), the figures are lower in connected speech, and we find that stylistic stratification is not as clear as with (dh). Although these Inwood groups do not represent a very large number, it gives us some indication that in the Northern ghettos white and Negro working-class youth are converging on the same pattern.

One way of summing up the information presented on (th) and (dh) is to write a formal rule. In most cases, we will be beginning with the same lexical underlying form as with SE, since we see little evidence of confusion of word classes. A low level phonological rule which converts the inter-dental fricatives variably to non-standard forms would resemble (1):

$$(1)\qquad \begin{bmatrix} +\text{cons} \\ -\text{voc} \\ +\text{diff} \\ -\text{grave} \\ -\text{strid} \end{bmatrix} \rightarrow ([-\text{cont}]\ ([+\text{abroff}]))\ /\ \#\begin{bmatrix}\alpha\overline{\text{voi}}\text{ced}\end{bmatrix}$$

This rule converts the non-strident apical fricatives /θ/ and /ð/ to affricates, [-cont], with one input variable, and as a second option with another input variable, to the corresponding lenis [-tense] stops. The feature [+abrupt offset] seems appropriate here, since we are dealing with mellow affricates which are not continuants, but do not have the abrupt offset characteristic of stops. It is the addition of this feature that converts an affricate into a stop, which is defined by an abrupt onset and offset. The input variables are plainly functions of contextual style and socio-economic class in NNE

$$(2)\qquad k_0 = f(\text{style, SEC})$$

and as we have seen above, the feature of voice favors the application of the rule in NNE, though not in WNS.

3.1.2. *The (R) variables*. Although the vocalization of final and pre-consonantal *r* will be an important factor in dealing with the contraction and deletion of the copula *are*, the major effect of the vocalization of *r* is upon individual lexical terms, and we deal with it here as a phonological variable.

Just as we saw that NNE has characteristic ways of treating the (th) and (dh) variables slightly different from the WNS of New York City, so NNE differs from WNS and various SE dialects in the quantitative treatment of the vocalization of *r*. The situation for the WNS of New York City may be summarized as follows: in final and pre-consonantal position, underlying *r* is vocalized according to a variable rule which is sensitive to age, sex, socio-economic class, and contextual style (SSENYC: 240, 345). In the basic vernacular of casual speech, the rule is almost categorical for all but the upper-middle class. However, when the next word begins with a vowel, the rule operates quite seldom, and constricted [r] is usually found. There is never any vocalization of r in inter-vocalic position within a word. In earlier forms of NYC WNS, the mid vowel of work, hurt and shirt was vocalized with a palatal upglide yielding [əɪ]. However, this has been stigmatized with extreme force over the past five decades, and as a result such a form is rarely found among young speakers outside of the lower class (SSENYC: 340). The form which is heard is a constricted central [ɝ] which may be regarded abstractly as simply consonantal [r]. The rules which account for this WNS pattern may be given as (3) and (4).[3]

$$(3)\qquad \begin{bmatrix}\text{+voc}\\ \text{-tense}\end{bmatrix} \rightarrow (\emptyset)\ /\ [\text{+cons}]\begin{bmatrix}\overline{\quad\quad}\\ -\overline{\text{low}}\end{bmatrix}\ \underset{\text{r}}{\begin{bmatrix}\text{+cons}\\ \text{+cen}\end{bmatrix}}\ [\text{+cons}]$$

$$(4)\qquad [\text{+cen}] \rightarrow ([\text{-cons}])\ /\ [\text{-cons}]\ \_\_\begin{bmatrix}\sim V\\ -\alpha(\#\#V)\end{bmatrix}$$

Rule(3)takes care of the case of bird, nerve, work, hurt, removing the vowel so that rule (4) does not apply. Rule (4) shows that the vocalization of r is variable only in the case that a vowel does not follow directly after the r. If a word boundary intervenes and then a vowel, the rule is variable as indicated but at a lower level than otherwise. This rule is subject to a rather complex set of conditions on k_o.[4]

The NNE treatment of variable (R) may be summed up by saying that this dialect shows a higher degree of r-lessness. Wherever WNS shows a variable rule, we find that the NNE rule goes to completion. And in cases where WNS never applies the rule, we find NNE applying it at low frequency.

	Vocalization of r is:	
Environment	NYC WNS	NNE
__C	semi-categorical	semi-categorical
__##V	infrequent	very frequent
V__V	unknown	infrequent

Where a consonant precedes the r and a vowel follows, we find a very complex set of conditions, with considerable lexical variation, in NNE. Thus [θu] is quite common for threw and through, but before front vowels as in three the r is normally retained. We will not consider postconsonantal r in this report, but confine our attention to the three environments listed above.

In the basic vernacular, we do not expect to find any constricted r's in final and pre-consonantal position. Furthermore, we find that the rule applies with very high frequency when the next word begins with a vowel. As a result, there are many words where there is no morphophonemic alternation to support a final r in the underlying forms, and we would expect to find that many NNE speakers find great difficulty in reading and writing forms with final r's; furthermore, we would expect to find a great deal of irregularity in the spelling of such words. For WNS speakers, the phonetic quality of most vowels indicates an underlying r, but for NNE speakers there is an additional rule which removes the phonetic heritage of the r. This is the rule which we entitle "loss of post-vocalic schwa"; it is the one which operates in non-standard Southern speech to give sho', po', fo', and also they in place of their and you in place of your. When the schwa which replaced the r is removed after a vowel, only a small difference in height separates they from their, you from your, a situation which is predictably unstable.[5] As a result, many Southern dialects show a collapse or merger of these two lexical forms and the dialect spelling they book, you book, seems to represent the actual situation as far as native speakers are concerned. (This is treated in greater detail on page 106-7 and 3.3.6 below in relation to the possessive in general.)

Inter-vocalic (r) When we consider inter-vocalic r, which is never vocalized in WNS, we find that there is a certain percentage of cases in which the rule applies. Some of these seem to be lexically conditioned, as in Flo'ida for Florida Other words are sometimes vocalized, so that Cal can by homonymous with Carol and pass with Paris. However, as Table 3-2 shows, the frequency of vocalization of inter-vocalic position within a word is much lower than for inter-vocalic position at the ends of words. Table 3-2 shows the frequency of the r vocalization rule as the percentage of cases in which the rule does not apply--that is, the percentage of constricted [r].

As we examine figures in this table, it is apparent that there is a fairly uniform percentage--from 2 to 15 percent at most--of cases in which inter-vocalic r is vocalized and perhaps deleted. There is reason to think that this characteristic is disappearing from the speech of the younger generation, since the working-class adults show about twice as high a frequency as the peer groups. Though the rule applies in only a small percentage of cases, we can observe social stratification, since the middle-class adults shows the highest percentages of consonantal r, and the upper section of the Northern

TABLE 3-2

SOCIAL AND STYLISTIC STRATIFICATION OF AVERAGE (R) INDICES FOR NNE AND WNS GROUPS

	(V́rV)			(r##V)		(r)			
	Style			Style		Style			
	A	B	D	A	B	A	B	C	D
Thunderbirds (5/8)	98	98	100	15	04	01	00	10	23
Aces (4)		100	100		06	00	00	03	26
Lames (17)		87	100		11		02	25	26
Cobras (5/9)	97	93	100	00	04	00	02	13	24
Jets (12/13)	100	96	80	11	02	00	00	19	07
Adults									
Middle class	100	95	100	52	77	10	25		67
Working class --upper									
Northern		89	100	21	40	00	08		61
Southern		78	100	23	40	09	11		34
--lower									
Northern	79	80	100	22	06	01	05		44
Southern		79	100	37	12	(08)	09		37
Inwood (6)	100	100	100	95	80	00	00	00	13

Style

A: group or casual style
B: single or careful style
C: reading style
D: word lists

Numbers in parentheses represent numbers of subjects in Style B or Style A/Style B

Adults: MC: (10/14)
WC--u/N: (4)
u/S: (7)
l/N: (5)
l/S: (8)

working class is next. We therefore observe that the inter-vocalic sub-rule is subject to the same conditions on the input variable as the main rule for final and pre-consonantal [r], discussed below.

There is no lexical confusion at all due to the vocalization of inter-vocalic *r*; we find that it does not operate at all in reading texts or word lists: consonantal *r* appears 100^o/o of the time. The figures on the Inwood group show that there is no tendency at all for inter-vocalic *r* to be vocalized among white speakers, so this extension of the rule is a purely Negro characteristic in this Northern area.

The (r##V) variable. The picture is quite otherwise as far as (r##V) is concerned. Here the rule operates far more extensively with the youth, who show nothing higher than 15 ^{o}/o constricted *r*, while the adults range from (r##V)-06 to (r##V)-77. Among the peer groups, there is no sign of regular stylistic stratification, nor of any marked shift with age, as far as styles A and B are concerned. Unfortunately, we do not have sufficient data on any of the formal styles to observe the behavior of (r##V) in reading or word lists. We might well expect to find a marked increase in consonantal [r].

When we examine the figures for the adults, we do find very clear social and stylistic stratification, as indicated in Figure 3-4. The middle class is opposed to the working-class groups by the high level of (r##V). Both upper sections of the working class follow the middle class in using more consonantal *r* in careful speech, while the lower sections do not.

When we consider the Inwood groups, we find again that the Negro groups show a much higher degree of *r*-lessness than the white groups. The rule does operate to a very slight extent for the Inwood groups, but in the great majority of cases, they preserve the *r* of the underlying form before a vowel.

Final and pre-consonantal (r). The most important (R) variable is the residual case of final and pre-consontal (r). In SSENYC, it was found that this showed the most regular and fine-grained stratification throughout the white population; all groups except the upper-middle class are *r*-less in casual speech. Their use of consonantal *r* slopes upward regularly as they shift to formal styles. The Negro group of SSENYC is no exception; if anything they respond more sensitively to *r* in formal style than white speakers, although as pointed out here, their vernacular is even more *r*-less as shown by their extension of the rules to other environments (SSENYC: 647). The data of this study confirms this view. Table 3-2 shows again that very little r is used in casual speech or group style. The peer groups do not show any significant increase in r until they reach reading style or word lists. The lames,* who read best, show the most r in reading style. The white adolescents are almost exactly the same as the Negro adolescents; if anything, they show less r.

As far as the adults are concerned, we find a regular pattern of social and stylistic stratification. Only the middle class uses a significant percentage of r in casual speech; the (r)-10 is a mixed figure, since about half of the speakers use (r)-00 and the others (r)-15-30, in a manner comparable to SSENYC.

When we examine the working-class adults, it seems at first glance as if the Southern speakers reverse the pattern in casual speech, but this is only due to the fact that some of the Southerners come from North Carolina and adjacent areas where considerable r is found in the vernacular.[6] As we expand our working-class data, it will be possible to show clearly how the mixtures of various Southern dialects among first-generation immigrants merged to a uniform r-less pattern in the second generation.

The (r) values for word lists show very clear social and stylistic stratification; as indicated in Figure 3-4. We have not yet analysed the "Nobody Knows Your Name" readings for adults, but when style C is filled in we expect to see the same regular pattern as in SSENYC.

To conclude, we find that (r) is a variable which responds to the prestige norm of r-pronunciation which is rapidly penetrating all of the r-less dialects of the Eastern United States. The youngest members of the society do have as clear a perception of this norm as the adults, but there can be no question that they recognize it in their speech patterns. In Chapter 4, the data on subjective reaction tests will show the relation of this norm to speech patterns, and in Chapter 5 we will consider the implications of this situation for reading.

As far as (work) and (her) is concerned, we find that the prevailing pattern is the use of constricted [r]. We also find some vocalization of her and were as [hə:] and [wə:], but we do not find the full short vowel of WNS [hʌ] and [wʌ]. There is some tendency for the palatal upglide to survive; its source is various Southern dialects[7] rather than the New York City pattern, where it has been fairly well extinguished in this generation (SSENYC: 340).

*isolated individuals

We therefore wish to remove these two word classes from the operation of the rule. The best way to do this in our formal treatment is to show that certain lax vowels are deleted before r as shown below, using rule (3) above. This rule can be simplified if we consider only the basic vernacular of casual speech or group interaction, which will be the main object of study in this chapter. For NNE, as reflected in Table 3-2, we have the form:

$$(5) \qquad [+\text{cen}] \rightarrow ([-\text{cons}]) \;/\; [-\text{cons}] \;\underline{\quad}\, \alpha(\#\#)\ *(\sim V)$$

This rule states that a central consonant becomes a continuant after a vowel or glide, and the rule applies categorically unless a vowel follows. If a word boundary comes before the vowel, the rule is favored: in other words, (r##V) shows less constricted [r] than (VrV). Rule (5) is somewhat easier to follow if we expand it into the four possible combinations of α and *:

environment	as in	α	*	Φ
V__V	Carol	-	-	$1 - (k_0 + k_1)$
V__##V	car on	+	-	$1 - (k_0 - k_1)$
V__ V__C	car. cart	-	+	1
V__##C	car top	+	+	1

A comparable rule for the Inwood groups is shown in (6):

$$(6) \qquad [+\text{cen}] \rightarrow ([-\text{cons}]) \;/\; [-\text{cons}] \;\underline{\quad}\left[\begin{array}{l} \sim V \\ \alpha(\#\#)\ *(\sim V) \end{array}\right]$$

Here the additional complication is that the rule cannot apply at all if a vowel follows the r directly. In other words, the case of Carol shown above has a Φ of 0, since it does not satisfy the condition that ~V follow immediately. The rule still applies categorically if a consonant follows the r, or if it follows after a word boundary, or if nothing follows after the word boundary. However, if a word boundary follows the r, and then a vowel, the rule is variable. It is not necessary to mark an α constraint in rule (6), since there is no variation possible if a word boundary does not follow. However, with this vacuous α, we can combine (5) and (6) into a single rule, using an extra-linguistic environment:

$$(7) \qquad [+\text{cen}] \rightarrow ([-\text{cons}]) \;/\; [-\text{cons}] \;\underline{\quad}\left[\begin{array}{l} \sim V \;/\; \text{WNS} \\ \alpha(\#\#)\ *(\sim V) \end{array}\right]$$

Rules of this sort have been utilized by Wölck and De Camp in explorations of pan-dialectal grammars.[8] Normally, we would enter the effect of ethnic group into the rule as an operator upon the input variable k_o

$$(8) \qquad k_o = f(\text{style, class, age, ethnic group})$$

However, in this and other sections we will see that there are differences between WNS and NNE which are of just this nature: the NNE form is somewhat more general, and the rule will show a restriction or extra condition in SE or WNS which is missing in NNE.

The condition on the input variable (9) will still include ethnic group, even if we utilize rules such as (7), but the exact specification of this expression does not fall within the province of this report.

It can be observed that rules (5-7) convert [r] into [ə], but there are many cases where it is not realized as [ə] in the phonetic output. Thus we have long monophthongs such as [kɑ:] and [lɔ:] for the low vowels. The rule which converts certain diphthongs into equivalent monophthongs is not presented in this report but can be derived from certain general quantitative considerations based on the underlying phonetic grid.[9] On the other hand, deletion of a centering glide after high and mid vowels is not a feature of English in general, but is one of the most characteristic features of NNE. A special rule deletes post-vocalic schwa, leaving not a long vowel, but a short monophthong.

$$(9) \qquad \begin{bmatrix}+\text{cen}\\-\text{cons}\end{bmatrix} \rightarrow (\emptyset)\ /\ \begin{bmatrix}+\text{voc}\\-\text{cons}\end{bmatrix}\ \_\_\ \#\#$$

We do not have figures for how frequently this rule applies, but it is clearly a variable rule that is well-known and stigmatized in the South. Thus, white Southerners will frequently say "sho' 'nuff" and "shut the do' ", with clear vocal markers of "quotation", much as middle-class Northerners will use "ain't". This rule is deeply embedded in NNE. It leads to such derivations as

(10)	their	there	your	
	ðe+r	ðer	jo+r	underlying form
	ðe˅+r	ðe˅r	jɔ+r	lowering before r
	ðe˅+ə	ðe˅ə	jɔ+ə	vocalization of r
	ðe˅	ðe˅	jɔ	loss of post-vocalic ə

It is this last series of forms which apparently fall together with *they* and *you*. We are plainly dealing with a phonological process which affects unstressed *their*, *your* (and in Southern white speech, *there*). In the contracted phonological space of unstressed vowels, the distinction of [e ~ ε] and (u ~ o] is unstable; the net effect, which shows up in restressed *they* and *you*, is a re-ordering of the rules so that *r* disappears before lowering, and so leaves no trace at all.

Although there is then no distinction between the base form of the pronouns *you* and *they*, and the attributive possessive for these persons, the possessive category remains intact. The absolute forms remain *theirs* and *yours*, and the other pronouns which are not affected by such phonological processes retain their attributive possessive forms.

If there was no re-ordering, or lexicalization of this change, we would expect to find it reversed whenever final and pre-consonantal *r* re-entered the dialect. This is happening in those ghetto areas where the Negro community is surrounded by a white, *r*-pronouncing dialect. We examined the speech of six exploratory interviews with Negro adolescent boys in Venice, California.[10] Although these informants showed relatively careful speech, face-to-face with a white interviewer, we would have expected (r)-00 in Harlem; the actual (r) indices ranged from -25 to -50. But we did not observe in this limited data any shift in the possessives *they* and *your*, which indicates that change in the underlying forms may have taken place.

3.1.3. *Merger of (ihr) and (ehr)*. One of the characteristic developments of the WNS of NYC is the merger of high and mid vowels before underlying /r/, so that *cheer* and *chair*, *sure* and *shore* are homonymous for many speakers of the younger generation. This merger is the product of a general tensing and raising of the low and mid ingliding vowels--a process in which Negro speakers do not participate. In SSENYC, it was shown that the vowels used by Negro speakers, raised in New York and out-of-towners, were much lower than for white speakers, and showed no stylistic stratification (SSENYC: 303).

On the other hand, there is a reverse process operating in several Southern dialects, principally in coastal South Carolina,[11] which produces the same result in the speech of Negro immigrants to Northern cities. *Cheer* and *chair*, *poor* and *pour*, fall together at an intermediate range, usually closer to the mid vowel than the high vowel, and not necessarily tense and fronted as with the WNS of NYC.

The values of the variables were initially the same as for white speakers (SSENYC: 52,54) but it soon became apparent that these cutting points were not optimal for NNE speakers. We therefore re-organized the coding as shown below.

height of nucleus	WNS	NNE
i	1	a = 1'
ɪ		
e	2	
e˅		b = 2'
ɛ˄		
ɛ	3	
ɛ˅		c = 3'
æ˄		

The index was constructed as in SSENYC by taking the numerical total of the variables, dividing by the number of occurrences, and multiplying by ten.

$$\text{(11)} \qquad \text{(ihr) (ehr)} = \frac{\Sigma}{N} \cdot 10$$

Table 3-3 shows the data on the front vowels, in the word classes of beer and beard, on the one hand, and bear and bared, on the other. There is considerable evidence of lexical confusion, and even in most formal styles we find some speakers who show an absolute merger. Yet most speakers still make the distinction. There is no obvious sign of stylistic stratification, as in the case of white speakers. Where the merger exists, the vowels seem to come closer in reading word lists, rather than show their greatest approximation in casual style. On the whole, then, we can say that the merger of (ihr) and (ehr) does not have great social significance for NNE speakers: it is distributed unevenly among the population, and exists for some as an absolute fact, for others as a slight tendency. It is stronger among adults than among adolescents , and of course shows up most strikingly in emigrants from coastal South Carolina. There is apparently a greater tendency for merger of the back vowels than the front ones, but since these are not as frequent as the front vowels, we decided to concentrate our attention in one area only.

TABLE 3-3

CONTRAST OF (ihr) AND (ehr) FOR NNE AND WNS PEER GROUPS AND ADULT SAMPLE

	(ihr)				(ehr)			
	Style				Style			
	A	B	C	D	A	B	C	D
Thunderbirds (5/8)	12	13	14	12	16	16	20	19
Aces (4)		13	15	15		18	18	17
Lames (17)		12	13	12		19	20	17
Cobras (5/9)	14	15	19	14	21	20	18	15
Jets (12/13)	14	13	10	12	18	18	14	14
Adults								
Middle class (4)		10		10		19		17
Working class								
Upper No'ern (3)	13	12		12	15	20		16
So'ern (5)	10	12		10	18	18		20
Lower No'ern (4)	10	10		10	18	19		19
So'ern (7)		14		11	21	20		27
Inwood (6)	14	12	12	13	20	20	18	19

Styles

A: group or casual
B: single or careful
C: reading
D: word lists

Numbers in parentheses represent number of subjects in Style B or Style A/Style B

Among eight Thunderbirds, we find only one--David--who shows a total merger of the word classes of beer and bear. If we match his (ihr) and (ehr) average indices for four styles, we find no firm distinction.

David	(ihr)	(ehr)
Style A (group)	17	16
B (single)	16	14
C (reading)	20	20
D (word lists)	12	15

In three of the four styles, these indices show the total lack of a distinction between the two word classes, and David's response to the minimal pair question followed this indication: to him, here and hair, bear and beer sounded the same. In contrast, the indices of Roger show a clear distinction in every style.

Roger	(ihr)	(ehr)
Style A	10	18
B	11	20
C	10	20
D	10	20

--even though he was not entirely clear about the question of same and different. In general, we consider the evidence of actual speech behavior, and the separation of word classes by the phonemes used in casual speech, to be the soundest indication of the phonetic structure of the language.

The situation in regard to the (ihr) and (ehr) contrast is not uniform throughout the peer groups. Three of the four Aces showed the merger in speech as well as a "same" reaction to minimal pairs.

Aces	(ihr)			(ehr)		
Style	B	C	D	B	C	D
Tony G.	13	10	10	14	10	10
Renard G.	10	20	18	15	20	20
Ted	10	10	12	21	20	20
Joseph	20	20	20	22	20	18

Note that Tony shows a merger in the high position, while Renard, his brother, shows a merger at (ehr-2); the only person who shows a distinction is Ted, who shows a clear differentiation in speech, although he did react to one minimal pair as the same.

The Lames are not too different from the Thunderbirds. Six out of nine show a firm reaction to the minimal pair test, and most speakers show comparable indices in speech in styles B, C and D. Again, we find that confusion in the minimal pair test is usually matched by overlapping in the pattern of speech.

When we examine the Jets and the Cobras, we find that the uniformity that prevails on the other linguistic items, again does not hold for (ihr) and (ehr). The records of the Cobras show a rather uniform distinction in styles A and B, but merger and confusion in styles C and D. On the other hand, the Jets' records show an approximation, but much less tendency to confusion of these two-word classes. The following comparison of the average indices shows the tendency which prevails for most individuals.

	(ihr)				(ehr)			
Style	A	B	C	D	A	B	C	D
Cobras	14	15	19	14	21	20	18	15
Jets	14	13	10	12	18	18	14	14

The middle-class adults, as indicated in Table 3-3, show about the same ratio of merger as the pre-adolescent speakers. We find 4 out of 13 showing confusion in the minimal pair test; a confusion which is matched in the pattern of speech. Furthermore, there is one individual who shows a merger in speech but who hears the word classes as different. This sporadic merger is therefore now part of the Northern pattern, since all of these adults were raised in the North. When we examine the working-class adults, we find roughly the same situation; there is no difference between the upper and lower sections as far as the (ihr) and (ehr) distinction is concerned. Those raised in coastal South Carolina naturally show the merger which is characteristic of that region, and which also appears at our interviews in Beaufort, South Carolina. There are 5 individuals who show clear evidence of merger, and all were raised in South Carolina. The only person raised in South Carolina who does not show this merger was raised in Spartenberg--well out of the area of merger (Kurath and McDavid 1961, Maps 34-40).

It is therefore apparent that among the adults, there is a close match between current dialect patterns and geographical origin. In general, we find that those Southern features which are mergers expand in the North, but those Southern features which represent distinctions not characteristic of Northern cities disappear in the Northern ghetto areas. Thus, for example, the merger of pin and pen expands, like the merger of cheer and chair, but the Southern distinction of four vs. for, which vs. witch, disappears in the Northern ghetto areas. We observe here the very general tendency for mergers to expand at the expense of distinctions (Weinreich, Labov and Herzog 1968).

It would be natural to ask if there was any correlation between the existence of merger between (ihr) and (ehr) in second-generation residents with the geographical origin of either parents. So far, we have not been able to establish any such correlation, and this finding is consistent with our general observations that the details of children's dialect features are not determined by their parents' dialect.

3.1.4. The (ohr) variable. We have not studied the (ohr) variable in the same detail as (ihr) and (ehr). The high back vowel or (uhr) is relatively rare, and the most common words have generally been re-assigned to other classes. Thus, sure is often pronounced with a mid-central vowel and poor is pronounced with a mid vowel by many who preserve lure and moor as high vowels. The data on (ohr) which we will present here is based upon the common minimal pairs shore vs. sure and poor vs. pour. In general, we find a widespread tendency to merger--more common than in the case of the front vowels. It may be the case that poor is a special lexical item, re-assigned to the mid vowels, and does not give evidence of a general merger.

We can generally report that of 15 adolescents, only one speaker showed a clear distinction between these two word pairs, and reacted to them as different. Curiously enough, he is the one Thunderbird--David--who showed a merger of (ehr) and (ihr). It is worth noting that the merger of (uhr) and (ohr) does not occur in high position, as with NYC WNS (SSENYC:513). Most of the merged vowels are at the level of [o] or even lower, at [ɔ]. A more detailed discussion of the coding of the (ohr) variable is to be found on page 35 of CRP #3091.

The adults show widespread merger of (uhr) and (ohr). Of the middle-class adults, we find only four who show a clear distinction between the two word pairs. We find three who merge poor and pour at the (ohr-1) level [ʊə], that is the high vowels characteristic of NYC WNS. It is interesting to note that this characteristic is found only among middle-class speakers raised in the North (with one exception--a working-class speaker raised in Georgia), and this data fits in well with the findings of SSENYC:303--which show Negro speakers using a much lower level of (ohr) than white speakers. We do not observe any of the adolescent boys using this high level of (ohr) and in general, we see that the vowel systems of NNE are quite independent of the development of the white vernacular in NYC.

Among the 23 working-class speakers examined here, we find only one who makes a clear distinction in both word pairs. Among those raised in the North, we find four out of eight who make and recognize a distinction between poor and pour, and in general, most Northerners believe there is a difference even if they do not make one. However, none of the Southerners made a clear difference between poor and pour; and only one thought that the two words sounded alike. This is a reflection of the fact that pour is generally realized as [po] throughout the South (Kurath and McDavid 1961: Map 42). There is far more uniformity in this feature than with the corresponding front vowels (Kurath and McDavid 1961: Maps 37 and 38). In this case then, we observe a slight dilution of this uniform Southern characteristic in the Northern ghetto. Our current data on Southern phonology does not allow us to say whether the merger of pour or poor corresponds generally to a merger of the larger word classes involved.

3.1.5. The vocalization of (ɫ). In many ways, the vocalization or velarization of dark (ɫ) is parallel to the vocalization or centralization of (r). Both are liquids having the features [+consonantal, +vocalic] and both lose their consonantal or constricted characteristic at the ends of words. However, the process which affects (ɫ) is much less regular than that which operates on (r) and even though it is more general among NNE speakers than others it still shows a great deal of variability. The vocalization of (ɫ) is especially important because it affects the expression of the future; when will is contracted and vocalized, it frequently disappears, especially before a labial, so that I be here may be derived from I + [invariant] + here or from I + will + be + here (3.4.12).

The constraining conditions on the vocalization of (ɫ) have never been investigated before, to our knowledge. We did not give a major share of our attention to this variable, but we did analyze a good portion of the data to see what the (ɫ) vocalization rule looks like.

Phonetic values of the (ɫ) variable. The vocalization or velarization of dark or velar (ɫ) produces a range of back, unrounded glides and occasionally a central glide. These back unrounded glides are difficult to hear for those unaccustomed to them, and there is no standard IPA symbol to represent them. One might use any of the symbols for back unrounded vowels with non-syllabic marks on them: [ɯ̯, ɤ̯, ɘ̯]. However, the variation in height and sonority makes any of these designations somewhat too specific. The symbol [ɫ̯] will be used to designate this unrounded velar glide. The notation suggests that it is lateral, and some observers think that it is; but we have no evidence to confirm this impression.

The glide is frequently rounded in the neighborhood of labial consonants, an extremely important feature as far as the ultimate development of such words as will are concerned. This glide is often deleted, by a rule parallel to rule (9)*which deletes post-vocalic schwa. In a few cases it is centralized to [ə], but this does not seem to be a regular tendency.

The value of the (ƚ) variables are therefore designated as

(ƚ-1) [ƚ]

(ƚ-2) [ƚ̯]

(ƚ-3) [ə̯]

(ƚ-4) ø

These apply to (ƚG), (ƚD) and (ƚ). The schwa variant is not common, although it may be an underlying, immediate form between -2 and -4. We will not include data on the (ƚ-3) variant in our tables, but instead, concentrate on -1, -2 and -4. The data in Table 3-4 will therefore be given as triplets representing the numbers of (ƚ-4) / (ƚ-2) / (ƚ-1).

Internal constraints upon (ƚ). It was observed early in the study of (ƚ) that the vocalization rule applied much more often when the (ƚ) was followed by a liquid or a glide -w, -y, -l, and -r. Thus, the rule applies much more often in NNE for words such as

w	y	r
always	William	all right
all week	will you	already
	million	all wrong

It is important in defining the (ƚ) to exclude the (ƚG) class outlined above if the basic vocalization rule is to be outlined most clearly. Furthermore, we found it necessary to separate the (ƚD) class from the others, since there are special problems involved in the intersection of the (ƚD) rules and the (ƚ) vocalization rule. Some of these problems are touched on in sections 3.2 and 3.4 below, and

---

* See section 3.4.6.

TABLE 3-4

DISTRIBUTION OF (ɫ) VARIANTS FOR NNE GROUPS ACCORDING TO PRECEDING VOWEL

I. (ɫG): with following liquid or glide

	STYLE	F__	C__	RB__	TOTAL
T-Birds	A	3/3/1	0/2/0	21/2/0	24/ 7/1
(5/7)	B	1/8/1	0/4/0	13/4/1	14/16/2
Aces (4)	B	1/2/1	0/2/0	5/4/0	6/ 8/1
Cobras	A	8/2/1	0/1/1	7/0/0	15/ 3/2
(4/5)	B	2/9/1	0/2/0	11/3/1	13/14/2
Jets	A	7/10/1	2/1/0	14/4/0	23/15/1
(3/4)	B	0/5/0	0/3/0	17/5/0	17/13/0
Oscar Bros. (4)	A	4/6/3	0/2/1	11/2/1	15/10/5
Lames (7)	B	2/4/0	0/2/0	7/2/1	9/ 8/1
		28/49/9	2/19/2	106/26/4	136/94/15

x/y/z = [ɫ]/[ɫ̯]/Ø

II. (ɫ)

		F__		C__		RB__	
	STYLE	__K	__V	__K	__V	__K	__V
T-Birds	A	2/42/16	1/2/10	0/33/2	0/3/1	28/19/4	1/1/22
(5/7)	B	1/45/7	0/4/3	0/34/7	0/1/3	12/19/3	1/5/14
Aces (4)	B	0/35/7	1/1/2	0/19/5	0/1/1	6/20/4	1/5/22
Cobras	A	0/13/4	0/1/13	5/15/0	0/1/0	15/10/0	0/0/21
(4/5)	B	2/38/0	0/2/17	0/31/4	0/0/5	17/16/4	4/2/28
Jets	A	0/29/10	0/5/8	2/26/8	0/1/4	18/13/1	0/2/12
(3/4)	B	0/20/7	0/2/7	4/35/0	0/1/3	18/22/2	0/0/20
Oscar Br (4)	A	0/24/4	0/0/6	1/26/7	1/5/1	17/13/3	1/0/16
Lames (7)	B	1/38/4	0/3/3	1/36/1	0/5/1	17/33/6	7/3/24
		5/284/59	2/20/69	13/255/34	1/18/19	148/165/27	15/18/179

Numbers in parentheses represent subjects in Style a or Style A/Style B there are some particular problems of ordering of the two sets of rules which will be mentioned at the end of section 3.4. In this section, we will consider the (ɫG) and residual (ɫ) class.

It is, of course, essential to consider the influence of a following vowel, just as with (r), (KD) or any of the word-final variables. As we shall see, a following vowel has a much stronger influence on (ɫ) than on (r), in line with the previous observation that the vocalization of (r) is much further advanced and more general.

One of the most interesting questions concerning (ɫ) is the influence of the preceding vowel, and the effect of this vowel upon the phonetic variant (ɫ). Initial observations led us to the belief that front vowel vs. back vowel was the primary consideration, and furthermore, that it was the rounded feature of the back vowel that was critical. We therefore subdivided the (ɫ) classes into four sub-classes:

F-- front vowel preceding (ɫ)

C-- central vowel preceding (ɫ)

RB--rounded back vowel preceding (ɫ)

UB--unrounded back vowel preceding (ɫ)

It is, of course, the last category which is most critical for deciding between backness and roundedness; unfortunately, words such as *dull* and *bulb* are relatively rare, and our data is hardly conclusive. As far as we can see, there is no major constraint dependent upon the height of the preceding vowel.[11]

The distribution of the variants. Table 3-4 shows data for selected groups of NNE speakers. Complete data is given on the Thunderbirds and partial data on the Aces, Lames, Cobras, Jets and Oscar Brothers. The study of (ɫ) was not continued through the major portion of the Jets and the adults since the data given here seems to be quite clear cut. The actual numbers of variants are given in Table 3-4, and Figure 3-4 shows frequency distributions--i.e., values of φ. Here again, we note the extreme regularity of the systematic variation found in NNE. The fundamental relationships repeat for each peer group and for each stylistic shift within each vowel class. We find no difference between the effect of front vowels and central vowels as opposed to rounded back vowels, but we have retained these separate categories in Table 3-4, so that the reader may see how such fundamental relationships are repeated within these equivalent sub-classes--as some measure of the regularity of the data.

Table 3-4 shows that the effect of a following vowel on (ɫ) is extremely strong in all cases. For all of the peer groups, in both group and single style, (ɫ) is infrequently vocalized before a following vowel.

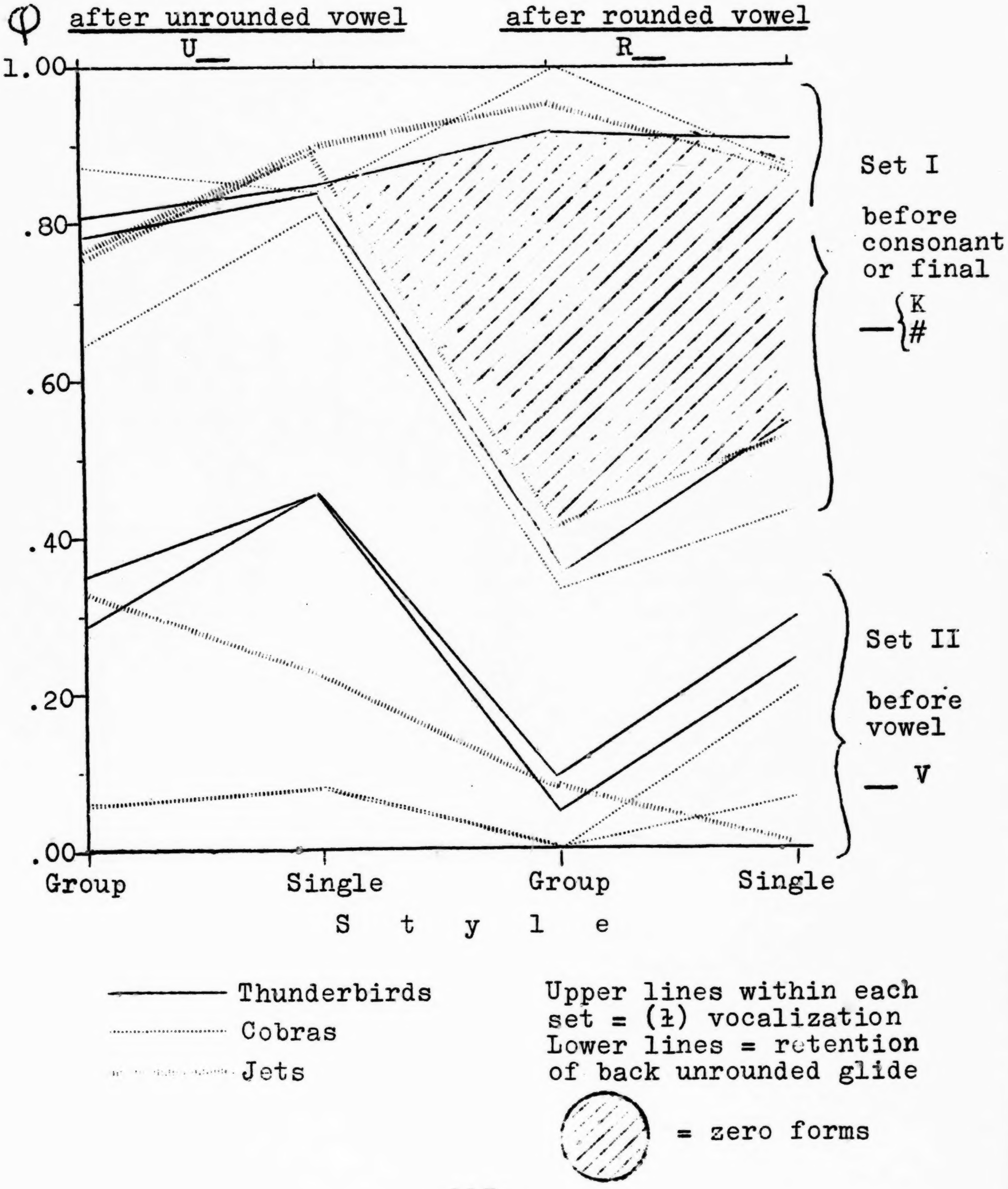
The second effect which is worth noting is that the zero variant is far more frequent after a rounded vowel than after an unrounded vowel. We can account for this phoneticially by observing that two glides are not as a rule permitted after an English nucleus, and the vocalization of *ɫ* follows the dipthongization rule. There are many dialects which do not vocalize *ɫ*, but which change the rounded upglide to an unrounded upglide or a centering glide before dark [ɫ]. Thus, in New York City, we find that *daily* and *sail* frequently have the same vowel as *bad* and *where*--[ɛ^ə]. In this case, we find that the normal resolution of the sequence [ʊ̯ɨ̯] is for the unrounded back glide to disappear. Abstractly, we might say that it assimilates to the rounding of the previous glide and the two glides merge into one, but it will be simpler for us to write a rule which deletes the glide in one step. It it true that we also get some zero forms after front vowels but Table 3-4 shows that the frequency is extremely low.

The third constraint upon the form of (ɫ) is a stylistic one. We find that the Thunderbirds use 20°/o more zero forms in group style than in single style; the Cobras show 21°/o more; and the Jets 13°/o. One might suppose that this is merely a reflection of the allegro character of group sessions, but we will note in 3.4 a contrary finding--that the number of full forms of *is* increases in group style.

Figure 3-4 superimposes the values of ϕ for the major (ɫ) vocalization rule and for the deletion of the unrounded glide, for the Thunderbirds, the Jets and the Cobras in both group and single style. The upper set of lines represents the operation of the rule finally and before consonants (except liquids, glides, and -*t*,*d*); the bottom set before vowels. It is immediately apparent that the following vowel is the primary, α effect, since there is no overlap at all.

The three major peer groups are remarkably similar in their treatment of (ɫ). The upper set of lines in each sub-set represents the over-all application of the ɫ-vocalization rule. Where there is a lower set, this represents the retention of the lateral unrounded glide. The gap between the two lines therefore represents the percent

Figure 3-4. Vocalization of (ɫ) and deletion of unrounded glide by Thunderbirds, Jets and Cobras



of zero forms: [tu·] for *tool*. It is plain that these forms are infrequent after unrounded vowels, and are used more often in group than in single style--by all peer groups. As will observe in many other cases, the constraint of a following vowel increases with age: it is weakest with the Thunderbirds.

As noted above, the major constraint upon the ɫ-vocalization rule is the influence of a following vowel. We can observe that when a vowel does follow, the effect of a preceding rounded vowel is to make the rule operate *less* frequently, just the reverse of the case before consonants. The explanation for this is not obvious. It may be that the influence of the back rounded upglide of *o* and *u* reinforces the tendency to assign the [ɫ] to the next syllable, favoring the CVC syllable structure. In any case, this is a minor effect compared to the overall effect of the following vowel in repressing the operation of the rule.

The vocalization of (ɫ) for the major class operates at very high levels, and is favored slightly by the influence of the preceding rounded vowel. We see no major stylistic effect upon the operation of this rule. The ɫ-vocalization rule therefore takes the following form:

$$(11)\quad \begin{bmatrix}+\text{voc}\\-\text{cen}\end{bmatrix} \rightarrow ([-\text{cons}]) \;/\; [(\beta)(-\alpha)\text{round}] \;\_\_\; \begin{bmatrix}\sim V\\ -\alpha(\#\#V)\\ (*)(\gamma)\text{cons}\\ \gamma\,\text{voc}\end{bmatrix}$$

This rule is somewhat more complex than any of those which have been introduced so far, in two respects. First of all, it is necessary to indicate that the class of liquids and glides has a categorical effect on the rule. This class is designated usually as [αconsonantal,αvocalic]. We can achieve the desired result by placing an asterisk before one of the variables, in this case utilizing γ. The effect of multiplying variables follows the usual interpretation of multiplying signs: if the vocalic and consonantal features agree, then the result is positive and the * applies to eliminate all variation. In the two other cases, the result is -, and the * does not affect variation. In one of these cases, we have a vowel which is taken care of by the two other features above. In the case of [+cons, -voc], the γ effect is simply added to the others.

The second example of multiplication of features is found in the reversal of the effect of a rounded vowel before the [ɫ]. The notation (β)(-α) operates so that a rounded vowel favors the rule except when a vowel (after a word boundary) follows, in which case this preceding rounded vowel has the reverse effect. The convention utilized here is that the ordering of the variables is determined by the first in the series, and this constraint is therefore a minor one as compared to the effect α of a following vowel. It is obvious from Figure 3-4 that these two constraints are geometrically ordered, as noted above.

Rule for deletion of the lateral glide. The rule which responds most sharply to the preceding vehicle is the deletion of the lateral glide. All of the groups studied show a very strong effect in which the rounding of the preceding vowel favors the rule. This applies, of course, to all but positions before a following vowel, where such deletion is almost zero. We also observe a marked stylistic effect upon the operation of this rule. The Thunderbirds, the Cobras, and the Jets all show lower values of φ in single style as compared to group style. Furthermore, the lames show comparatively low values in this case, compared to the Thunderbirds who are full group members. We can conclude that the deletion of the lateral glide is a variable with affective value in NNE, and which operates most frequently in the vernacular itself. The form of the rule would therefore resemble (11').

(11')
$$\begin{bmatrix}-\text{cen}\\-\text{voc}\\-\text{cons}\end{bmatrix} \rightarrow (\emptyset) \;/\; \begin{bmatrix}\alpha\text{round}\\-\text{cons}\end{bmatrix}\underline{\quad\quad} \;(\#\#)\; \sim\text{V}$$

3.1.6. The distinction of /i/ and /e/ before nasals. One of the most general phonological characteristics of Southern English is the merger of /i/ and /e/ before nasals. Thus pin and pen, tin and ten are homonymous. In a large portion of the Southern United States, including most of the border states, this characteristic has been expanding beyond the South, and in some exploratory interviews, we find it as far north as Gary, Indiana. Its outward expansion is another evidence of the tendency of mergers to expand at the expense of distinctions.

In the interviews carried out on the lower East Side for SSENYC, it was observed that some evidence of this merger was found in almost all Negro speakers but not in any white speakers. It was quite common for Negro children to report that they had asked for one kind of [pɪn] and gotten a different kind. The Southern custom of referring to a fountain pen as an ink pen was also found occasionally in New York City. 12/

It is of course not material whether the speaker uses the vowel [ɪ] or [ɛ]. The important question is whether or not he makes the decision consistently.

In this study, we did not attempt to study these vowels in all styles of speech in detail, but we did observe that the merger is not quite as uniform as SSENYC indicates. Furthermore, there is some reversal of the merger brought about by school contacts, and the evidence of minimal pairs is therefore suspect. However, the following observations based on the minimal pairs *pin* vs. *pen* and *tin* vs. *ten* gives some idea of the pattern.

Among the pre-adolescents, only 4 out of 19 responded consistently to the minimal pair test, pronouncing both pairs as different and hearing them as different in accordance with the Northern pattern. Quite a few pronounce the pairs differently, but thought that one or both pairs sounded "the same"--seven in all. As far as the vowel itself is concerned, most of those who showed the merger in their pronunciation used the high vowel [ɪᵊ], but one speaker used the low vowel and two were mixed. There was no obvious social stratification with this variable since the lames or isolated members showed the same tendency as the peer groups.

When we turn to the adults, we find that ten of fourteen middle-class speakers made the distinction in speech and heard the pairs as different. But this is not a clear sign of social stratification, since seven of the nine members of the Northern working-class group did the same. On the other hand, only four of the fourteen speakers raised in the South made the distinction consistently. Those who did not were equally divided between the high and mid vowels.

Our view of the (in) variable is therefore that of a rapidly expanding regional feature which has been imported from the South into the Northern ghetto areas. Except for a few speakers who have learned the Northern pattern, mostly in school, there is a consistent merger among the younger NNE speakers. In this respect, it is quite similar to *four* vs. *for* or *which* vs. *witch*, with the exception that the South shows the merger in one case and the distinction in the other case. The direction of change again favors the merger.

Some further indication of the status of the *pin* vs. *pen* distinction is given in a discussion of perception tests [PT] in Volume II.

3.1.7. *Dropping the g: the (ing) variable*. One of the sociolinguistic variables which has been studied most, and which is most stable throughout the United States is the (ing) variable. The early observations of Fischer (1958) show that boys use more of the stigmatized -*in*' variant than girls, and the boys that conformed most used less of this variant. In SSENYC:398 it was shown that the ing variable shows some of the same stable patterns of stylistic and social stratification as (dh) and (th). When we studied the pattern of Negro speakers, we immediately found a very clear and extreme type of style shifting which runs across all social classes and age ranges. The normal pattern for NNE speakers is to use all -in' in casual or group style, and all -ing in formal style. There is no other sociolinguistic variable which shows such an extreme style shift, except patterns of intonation which are not as easily recorded in discreet terms. We did not attempt to accumulate a great deal of data on the (ing) variable since, as Table 3-5 shows, this overall pattern is extremely regular.

Comparatively little attention has been given to the definition of the ing variable as far as the class of total occurrences which are to be counted. We are not, of course, dealing with the suffix -ing, since words like something, anything and nothing follow the same pattern as working and fishing. But it is only the unstressed -ing which is to be counted, since words such as thing and sing never lose their velar final. Variant forms such as [sʌmpm] which do not show apical finals are not included in this word class. We therefore take the (-ing) index as the frequency of the [ɪŋ] or (ing-1) in the total number of occurrences of unstressed /ing/.

We do find considerable sociolinguistic stratification in the (-ing) index in careful speech. Among the adolescents, it is noteworthy that only the lames use a significant percent of [ɪŋ] in style B. Among the adults, we find that there is a small but regular effect by which those raised in the South even show less [ɪŋ] in word lists than those raised in the North or middle-class groups. Finally, we note that the Inwood group is just as extreme in this respect as the NNE peer groups.

In general, we can say that the (-ing) variable is one of the simplest and most straightforward sociolinguistic indicators in NNE, and NNE differs from SE primarily in the wider range of style shifting. This probably can be attributed to the fact that uniform -in pronunciation is more regular in the South, which determines the form of the NNE vernacular; but since formal speech is associated with Northern patterns, speakers move as far away from this Southern pattern as possible in reading word lists.

It is interesting to note that the shift of underlying -ing to [ɪn] is a rule which eliminates one of the few non-apical inflections in English; leaving only the stable 'm of the contracted coupla in the first person singular.

All other inflections (even the marginal -ly and -er forms) are formed in the favored apical position. In the next sections, we will consider the treatment of the major apical inflections which utilize -t,d and -s,z.

TABLE 3-5.

STYLISTIC STRATIFICATION OF (ing)
FOR PEER GROUPS, ADULTS AND OTHERS

	Style			
	A	B	C	D
Thunderbirds	00	0	94	
Aces	00	00	100	
Cobras		01	67	
Jets	03	08	100	
Lames		23	100	
Adults				
Middle class		67		100
Working class				
Upper--No'ern		65		87
Upper--So'ern		10		75
Lower--No'ern		23		93
Lower--So'ern		15		86
Inwood		02		100

3.2. Simplification of -*t,d* clusters; reading the -*ed* suffix

3.2.0. *Consonant cluster simplification*. There is a general tendency in the evolution of Indo-European languages, and especially the Romance, Celtic and Germanic members, to lose information at the ends of words; it is illustrated in the phonological variables of the last section. This tendency shows up even more sharply in the treatment of consonant clusters. In addition to the more general trend, there is an inherent articulatory difficulty in final clusters of the CVCC type, and even more so in CVCCC forms. There appears to be a universal tendency for CV forms to be unmarked in respect to CVC--that is, the existence of the latter forms implies the former, and in turn CVC is unmarked with respect to CVCC. We have seen that in many phonological variables, the effect of the following vowel upon CVC forms is to reduce the tendency to lose the final consonant: final liquids which are normally vocalized are converted to initial liquids when words such as *haul* are found in sequences such as *haulaway*--that is, a CVC form becomes in surface phonetics, CVCVCV. Similarly, following vowels will serve to convert CVCC forms to simpler ones, so that *last* does not have a surface cluster in *last of all*: CVCC becomes CVC [CVCVC]. Thus there are two routes in the reduction of CVCC to CVC: either of the two consonants is vocalized or dropped, or the second is re-assigned to a following syllable. That is not to say that such a process is normally obligatory: it merely reflects the general tendency toward the simplification of consonant clusters.

On first approaching NNE, the existence of this general tendency is quite striking. All of the processes suggested above are active. First members of clusters are vocalized (*r*, *l*, sometimes nasals); second members are dropped (*t*,*d*,*θ* sometimes *p*, *k*, *s*, *z*), and second members are freely re-assigned to following syllables.

Furthermore, we find some speakers who go to extremes in their reduction of syllable form, and a general tendency to lose final consonants, especially apicals. Thus one illiterate speaker from North Carolina, from the Youth House series

> "I 'ont--think I talk too good, 'ko' [koˇ] when I come up down South...up here, dey don't understan' mah--sometime I be sayin'. Ba' [bɛˇ] speech. ...Every time I say a work [wək] or sump'm, I try to make it--be'er. (To) correck [kərɛʔ] myself every time I, you know, make a ba'-ba' speak. [bɛˇ bɛˇ spiʔ]."

However, these tendencies are not so general as to allow us to set up a general variable as (KKL), "consonant cluster simplification".

The treatment of clusters is quite specific to particular phonetic forms and grammatical constructions. For example:

1. Some clusters are never simplified so that the information is lost entirely. Final nasals *m*, *ŋ* plus stop may show coalescence of the nasal feature with the preceding vowel, but the final consonant is never lost. Thus everyone, including vernacular speakers, recognize that *jum' up here* for *jump up here* is quite impossible.

2. There is no general tendency for the treatment of final stops: apical -*t,d* are treated quite differently from -*p*, *k*, which are deleted only after -*s*- .

3. Clusters ending in final-*s,z* show no uniform tendency. The clusters formed by some morphological processes appear quite stable, while others are not. (See section 3.3 below.)

Our ultimate view of the matter will show that there is a general tendency towards consonant cluster simplification, but that it is highly differentiated. There is a specific rule applying first to all stops following sibilants; then a general rule for all other clusters ending in -*t,d* apical stops. A much weaker process applies to apical fricatives; many of the extreme cases of simplification of final -*s,z* clusters are not regular rules of NNE at all, but cases where the vernacular has no morpheme /z/ at all. Finally, we will see in section 3.4 that the weak tendency towards consonant cluster simplification of /z/ clusters is operative in the treatment of the copula.

In this section we will consider clusters ending in -*t,d* as the largest unit which can be treated by a single rule. In general, we will find that consonant cluster simplification is a phonological process which intersects with grammatical processes, operating upon a number of surface formatives to produce highly reduced surface forms, and the general rule which governs simplification can only be written when these grammatical forms are accurately known. In this section, we will consider clusters ending in -*t,d* which intersect with the -*ed* suffix for the regular past. The effect of the phonological process will be to reduce the frequency and stability of the morphological form, and we will see that even though the -*ed* suffix is an inherent element of NNE, the effect of the variable phonological rule is to interfere with the efficient decipherment of the printed -ed in reading.

3.2.1. Inherent variability and regularity of -t,d simplification. The first statement which must be made about -t,d clusters is that they are variable. We have no NNE speakers, in any context, at any age level, who do not have some intact clusters; this is true not only of clusters with morpheme boundaries as in passed, but also monomorphemic clusters as in belt. (There are speakers who seem to have categorical deletion of -st clusters, however). Furthermore, the extraordinary regularity of the processes and the regularity of the internal constraints involved, show that these final -t,d's are in no case erratic borrowings from SE (as is the case with certain third singular s's). An example of such regularity can be found in Table 2-6, showing simplifications of monomorphemic -t,d clusters for 11 members of the Jets. It is important to emphasize that regularity is consistent with variability. One might be tempted to hope that further examination of the data would ultimately eliminate variability and allow us to predict or account for each utterance. However, all of our experience has led us to believe that such hopes are illusory. The relatively rare cases of monomorphemic -st before consonants are not predictable at any one point: what is predictable is that in every hundred cases, one to five will not be simplified.

We find it difficult at present to explain the extraordinary regularity of -t,d simplification. It is likely that a great many small factors influence simplification with mutually cancelling effects, to produce the regularity of Table 2-6. On the other hand, certain major constraints, such as those discussed below, can easily be distinguished from background variability.

Another aspect of the regularity of -t,d simplification is the fact that the basic relationships are repeated in group after group, across neighborhoods and age levels. The rule for -t,d simplification to be developed in this section describes a fairly uniform NNE grammar which prevails from pre-adolescence to early adulthood. Certain quantitative changes take place, and some significant re-ordering in the variable constraints, but the fundamental variable input and variable constraints remain the same.

3.2.2. Principal values of the variable. The variable referred to as -t,d simplification [abbreviated (KD)], shows the following possible variables:

(KD-x): both members of the cluster present
(KD-1): first member present only
(KD-2): second member present only
(KD-0): neither member present

The total population of utterances which must be accounted for are all forms in which SE has word-final clusters ending in [t] or [d]. In some of these, such as the past-tense forms, voicing is strictly determined; in others, such as *melt* vs. *meld*, it is not. As always, when SE forms are used as reference to establish the population of underlying forms, we must be prepared to revise this definition if it turns out that some of these forms show only (KD-1) in NNE. If there is any sizeable population of NNE forms included which have no underlying clusters, then of course the variable will be inaccurately defined and the internal relationships confused. As noted below, some of the -*st* -sp -*sk* forms may not have a second consonant in NNE for some speakers, but these will eventually be governed by a separate rule.

The transcription and coding of the (KD) variables as a rule are fairly straightforward. However, various phonetic conditions lead us to re-define the population from which the values of the variable determined. In a number of cases, the variable is neutralized and it is impossible to determine which value is present: when the cluster is followed by /t/ or /d/, or /θ/ or /ð/ (since the latter may be represented by stops or affricates). In the case of nasal /n/ plus /-t,d/,we frequently find that a nasal flap is formed in which the stop feature is expressed by the ballistic flap character and the nasal by nasality. Yet this flap characteristic shades imperceptibly into a single nasal, and it was found impossible to code the series satisfactorily: that is, the number of indeterminate cases was large as compared to the clear cases. Therefore after some initial trials it was decided not to include nasal plus -*t,d* in the variable (KD) population. In the case of -*st*, a certain number of difficult cases were encountered when the stop feature was expressed as a slight constriction of the fricative at termination. However, the great majority of -*st* cases were quite clear.

The only cases where the first element disappears and the second is retained, (KD-2), are those where other phonological processes remove the first element, such as -*lt*, -*ld*. This is also the case with (KD-0). Therefore all of the following data is presented as a ratio of (KD-1) to the total population: that is, the number of cases in which -*t,d* is missing from -*t,d* clusters.

3.2.3. *Variable constraints on (KD)*. There are a number of internal, variable constraints on the simplification of -*t,d* clusters which operate regularly in the same way, for all sub-groups of NNE speakers.

Effect of a following vowel. As shown in Table 3-6, a following vowel regularly operates to reduce the amount of consonant cluster simplification. In final or pre-consonantal position, there is a much higher percentage of -*t,d* deletion. As suggested by Table 2-6, this is true for every individual as well as every group, whenever there is even a moderate amount of data.

Effect of a preceding morpheme boundary. Table 3-6 also shows that the effect of a preceding morpheme boundary is to reduce simplification, and that this effect is almost as regular as that of a following vowel. Because the number of cases is considerably lower than for monomorphemic clusters, there are a few individuals for whom the relationship does not hold, although it holds for all groups. Furthermore, as we will see below, the status of the morpheme boundary is not equally secure for all individuals.

The morpheme boundary here of course marks the -*ed* suffix of the regular past tense and past participle. Thus we are opposing the following type:

monomorphemic (KD_{mm})	*past tense* (KD_{p})
mist	missed
past	passed
melt	yelled
act	packed
apt	snapped
lift	sniffed
old	rolled

Ambiguous cases of -t,d. One of the first decisions forced by the accountability principle is deciding the status of verbs such as *left*, *told*, *kept*, *held*, etc., where the -*t,d* is not unambiguously the sign of a past tense. In these irregular verbs the past tense is also signalled by the vowel change *keep* ~ *kept*, *leave* ~ *left*, *tell* ~ *told*, etc. Should the -*t,d* here be counted under (KD_{mm}) or (KD_{p})? The line of thinking characteristic of many linguistic theories is to select either the vowel or the -*t,d* as the essential, distinctive feature and the other as redundant or non-essential. It is obviously wise to suspend judgment in this case and allow the data to decide the issue: even so, it is our conviction that the search for distinctiveness stems from a theoretical bias which is itself faulty, and that the choice of (KD_{mm}) or (KD_{p}) would represent a misconception of the relation

TABLE 3-6

PERCENTAGES OF CONSONANT CLUSTER SIMPLIFICATION FOR SIX GROUPS OF NNE SPEAKERS IN SINGLE AND GROUP STYLE

Group and number of members tabulated	KD_{mm}		KD_{p}	
	_#K	_#V	_#K	_#V
Single Style				
T-Birds (8)	94	59	74	24
Aces (4)	98	64	83	43
Cobras (9)	97	76	73	15
Jets (12)	94	49	44	09
Oscar Bros. (6)	97	69	49	17
Working-class adults (19)	86	49	47	18
Group Style				
T-Birds (5)	97	36	91	23
Cobras (5)	98	45	100	12
Jets (6)	98	82	60	05
Oscar Bros. (5)	97	54	85	31
Working-class adults (14)	89	53	60	22

N:	107	22	42	42
	56	14	20	14
	141	46	56	53
	243	68	70	96
	196	62	49	17
	269	117	115	133
	61	14	22	13
	47	27	16	25
	132	22	63	65
	129	29	62	60
	54	30	55	51

between the semantic and formal elements involved. A third category was therefore established, (KD_{am}) for these ambiguous elements. The data on (KD_{am}) is more limited than for the other categories, but as Table 3-7 shows, the figures fall squarely between (KD_{mm}) and (KD_p). This result plainly shows that each of the elements involved contributes to the past-tense distinction, and confirms the interpretation of the previous finding that the morpheme boundary itself reduces consonant cluster simplification.

It is worth noting here that the effect of the following vowel upon (KD_{mm}) is quite different than that upon (KD_p) clusters as far as establishing the nature of the underlying form for NNE speakers. If we consider that the word *mist* has a single underlying dictionary form, then the alternation *mist* ~ *mist is* [mɪs] ~ [mist ɪz] will establish //mist// as that form. But that is not the case with *missed*. The presence of absence of a past-tense morpheme immediately after *miss* must be decided for each occurrence. If someone says *He missed* as [himɪs], he cannot infer that the base form is //hi mis+d// because in some context he says *He missed 'im* [himɪstɪm]. What then does establish the underlying -*ed* form for the native speaker? It is apparently an inference from the entire configuration of the variables; when -*ed* does occur, it is with 'past'.

Nature of the preceding consonant. A less powerful effect upon (KD) is that of the phonetic character of the preceding consonant. All of the possible parameters were examined initially; the most significant seemed to be the presence or absence of voicing. Clusters with initial -*s*- seemed to behave differently from all others, with the highest degree of simplification. Clusters in -*lt*, -*ed* also formed a separate class, since the -*l*- is most often non-consonantal. Since nasal plus -*t,d* is not being considered, the balance can be divided into clusters which are voiced as a whole or voiceless as a whole (since clusters which are heterogeneous in voicing are confined to sonorant or nasal plus stop). In monomorphemic clusters, there is no comparison of voiced vs. voiceless clusters, since there are no voiced members of this residual subclass of (KD_{mm}). We do find a comparison in (KD_p), however, and there is a slight tendency for voiced clusters to be simplified more.

Clusters versus single stops: the (VD) variable. It is natural for us to inquire into the effect of the cluster situation as a whole as opposed to single consonants. We have noticed many striking cases of the weakening and loss of final -*t,d* directly after a vowel. On the other

TABLE 3-7

EFFECT OF PRECEDING CONSONANT AND TYPE OF MORPHEME BOUNDARY ON -*t,d* DELETION FOR ELEVEN INDIVIDUALS

	_##K	_##V
KD_{mm} (*fist*...)	90	50
KD_{am} (*kept*...)	50	31
KD_{p} (*passed*...)	38	14
VD_{mm} (*red*...)	22	04
VD_{am} (*said*...)	29	12
VD_{p} (*stayed*...)	22	04

N:	257	99
	59	52
	118	115
	124	91
	97	76
	50	59

hand, there are cases where the -*ed* suffix is lost as a whole when it follows apical stems in -*t*,*d*: *attempted*, *started*, etc. On the face of it, this would seem to represent the loss or the complete absence of the suffix rather than reduction through phonological processes: however, the evidence of -*ed* after -*t*,*d*, especially in words such as *tested* and *listed*, is not essentially different from words such as *passed*. There is good reason to say that the rule which inserts epenthetic [ə] follows the simplification of clusters. More detailed studies of the comparative frequency of -*ed* after verbs ending in -*t*, -*d* will be needed to confirm this point. But the fundamental fact about the (VD) variable, which is centered around monosyllabic forms, is that the loss of final clusters is much lower than for (KD). Table 3-7 shows (VD) as much lower than the (KD) of Table 3-6.

There are actually several phonetic routes by which final apical stops are eliminated. Final /d/ is frequently devoiced, and merges with final /t/ to yield [hɛd̥] for *head* and [devɪd̥] for *David*, and this lenis devoiced consonant then disappears. Thus *rabbit* and *rabid* would be homonymous, since the unstressed vowel preceding the final does not signal the original voiced consonant by it length. But the distinction between final -*t* and -*d* can also be preserved in this process, as final -*t* goes to glottal stop, opposed to lenis -*d̥*, and then to zero.[13]

3.2.4. *The special case of -sC clusters*. There are several reasons to believe that clusters in -*sp*, -*st*, -*sk* with first member -s- are governed by a different rule from other clusters.

a. The frequency of simplification is higher, approaching that of a categorical rule for many speakers.

b. These are the only clusters in which final -*p* and -*k* are effected: that is, after nasals and liquids these stops are preserved intact.

c. Final -*sts*, -*sps*, -*sks* present special difficulties for NNE speakers. These clusters are literally unpronounceable for most individuals (see the discussion of repetition tests below, section 3.9), and are resolved by a number of means all of which involve the loss of the stop. Thus we have

			sg.	*pl.*[14]	*other*
SE:	desk	NNE:	[dɛs]	[dɛsəz, dɛs:]	
	test		[tɛs]	[tɛsəz, tɛs:]	[tɛstɪŋ, tɛstəd]
	ghost		[gos]	[gosəz, gos:]	
	toast		[tos]	[tosəz, tos:]	[tostɪŋ]?
	wasp		[wɑs]	[wɑsəz, wɑpsəz, wɑs:]	

The word *ask* is of course a special case, since the metathesized form *aks* has been inherited from Old English as part of a continuous and separate colloquial tradition. When the alternate *ask* is used by NNE speakers, it follows the same pattern as the above.

The problem which we face here, of course, is whether the final stop is present in the underlying form for NNE speakers. The word *test* is one of several verbs which are of crucial importance, since they are found with inflections beginning with a vowel, and thus give native speakers an opportunity to observe the final stop. "1-2-3 testing" is a common phrase which our informants use freely, and although it may be a quotation from formal contexts, the basic form seems to be [tɛstɪŋ]. Since many of the -*st*, -*sp*, -*sk* words do not occur freely with suffixes beginning with a vowel, and the frequency of -sC simplification is very high; it is possible that many speakers grow up with underlying forms without the final stop. This is one of many cases in which the data present to an NNE speaker allows several analyses and it is reasonable to expect children to come to school with one or the other. The form [gosəz] is ambiguous: it may be derived from an underlying form //gOs// with normal epenthetic vowel inserted between two sibilants; or it may be derived from an underlying //gOst// with categorical removal of the //t//; in NNE the epenthetic vowel rule is plainly ordered after the -sK simplification rule. The example of *test* and *testing* may be enough to support the SE *ghost* //gOst// alternative, especially with a little exposure to the -*t* pronunciation. (Cf. 3.9.5).

The -sC rule has the following form:

$$(12) \qquad [-\text{cont}] \rightarrow (\emptyset) \;/\; [+\text{strid}] \;\_\_\_\; \#(\#) \begin{bmatrix} *\text{strid} \\ \alpha(\sim V) \end{bmatrix}.$$

We do not know enough about the effects of derivational vs. inflectional boundaries to specify these with much precision at this time. The situation seems to be that word boundary has little influence but inflectional boundaries do: that is, we obtain *testing* quite often, but the effect of a following vowel across word boundary is not great enough to give us more than a small percentage of *test about what*? rather than *tes' about what*? At first glance, it may seem that the -*es* of the plural *teses* [tɛsəz] may contradict this statement, since -*es* seems to have the same form as -*ing* (both are inflectional, are separated by #, and have no effect on the phonetic form of the preceding word). However, this gives us merely one more proof that the underlying form of the plural suffix is //Z//, and that the epenthetic schwa is inserted after the -sK simplification rule. That is, at the point in the derivation that the rule applies, we have //test#z//, and the * tells us that the t is categorically eliminated.

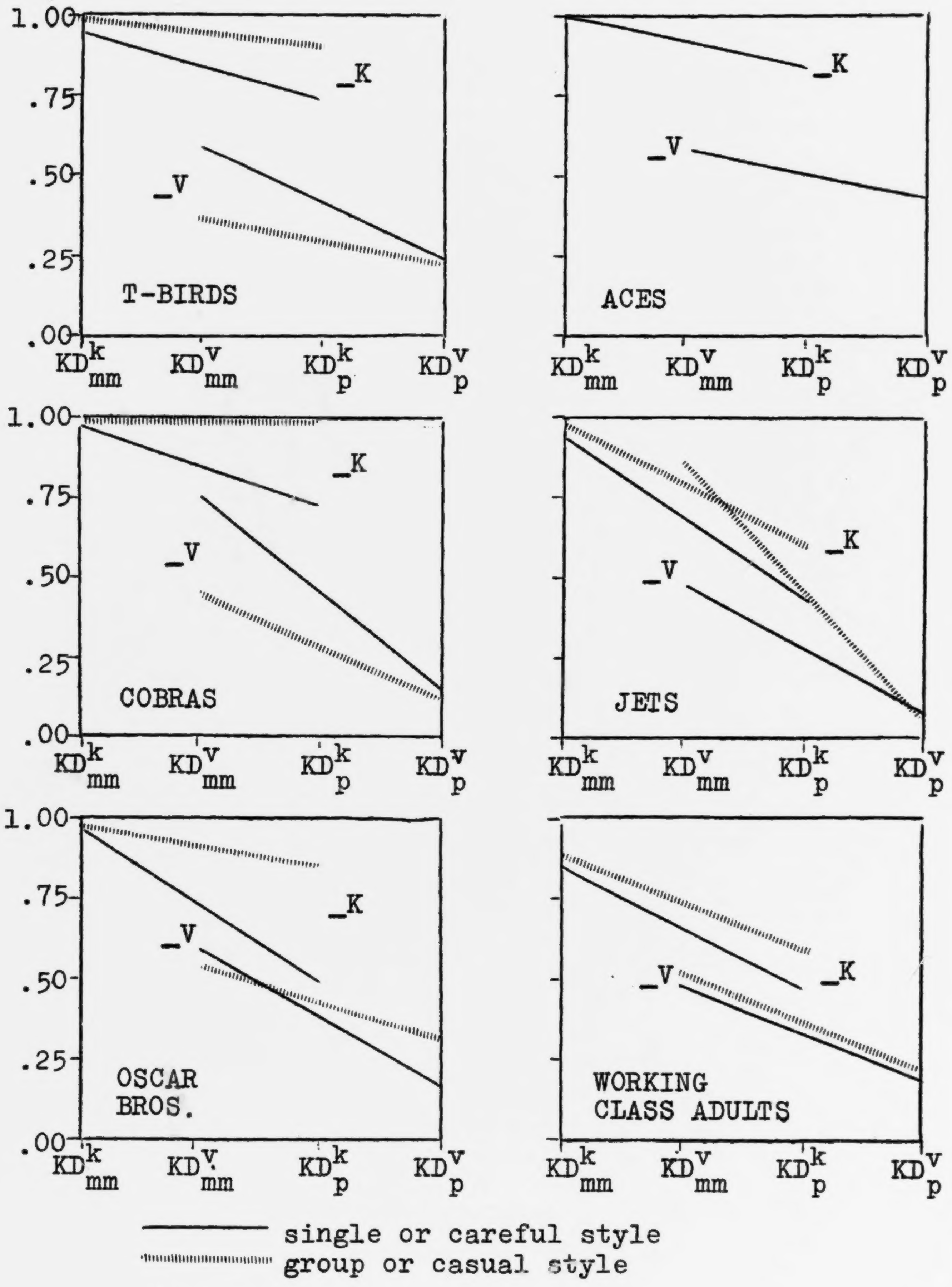
NNE	SE	
//test#z//	//test#z//	underlying form
//tes #z//		-sK simplification
//tes #əz//		epenthetic schwa
	//test#s//	voicing assimilation

Starting with the same underlying form, we then arrive at NNE [tɛsəz] and SE [tɛsts], with the only difference in the rules being the existence of the specific NNE rule of obligatory -sK simplification before sibilants. Note that the same result would have been obtained if the underlying NNE form was //tes#z// and it is only the evidence of forms such as [tɛstɪŋ] which establish the underlying -t.

3.2.5. The general -t,d simplification rule. The data in the previous sections indicate that the general -t,d simplification rule is quite complex. There are a great many particular variables which influence the process of consonant cluster simplification in NNE, and undoubtedly one could pursue the smaller effects of phonetic environment, stress, and juncture indefinitely. As interesting as these minor influences may be from the standpoint of linguistic structure and linguistic change, we should not lose sight of the fact that there are two major constraints which operate in an extremely regular fashion across all NNE groups: the effect of a following vowel, and that of a preceding morpheme boundary. Figure 3-5 shows the regular direction of shift for all groups in both single and group style.

There are two sets of lines in each diagram; the upper pair show the deletion of final -t,d before consonants, the lower pair before vowels. There are twenty-two cases, then, where the effect of a following vowel is to restrain the operation of the rule, and no contrary cases. In all but one case--the upper dotted line for the Cobras--the lines slope downward to the right, showing that the effect of the morpheme boundary is to reduce the deletion of the final -t,d: thus there are twenty-one cases where this relationship can be observed. There is also a stylistic regularity which can be noted; in the five cases where we contrast single and group style, there is more -t,d deletion before consonants in single than in group style. For the T-Birds and Cobras, this effect is reversed before vowels; the Jets, Oscar Brothers and working-class adults show a tendency to retain the same effect before vowels. We are not concerned here with the stylistic shift in itself however, but with the fact that the fundamental relationships are repeated in

Figure 3-5. -_t_,_d_ cluster simplification for NNE peer groups and adults in two styles



the two styles, and that this systematic variation appears in the basic vernacular.

In each group, and in each style, the basic relations are preserved: the effect of a following vowel is to reduce -t,d deletion, and the effect of the morpheme boundary is in the same direction. It is this type of regularity which we term "systematic" or "inherent" variation in the NNE vernacular.

On the other hand, we have simple phonological constraints: clusters show much more simplification than single -t,d; a following vowel reduces simplification; there is a slight tendency to favor voiced clusters; finally, we note that clusters with sonorant first members show less simplification than those with obstruent first members. On the other hand, there is a very regular and important constraint exerted by the presence of a morpheme boundary, and since there are two types of boundaries, the rule must specify this precisely.

We noted that the "ambiguous" boundaries of kep+t, tol+d, had less effect than a full inflectional boundary such as liv#ed, work#ed. We could of course specify this environment as

$$. \; . \; / \; . \; . \begin{Bmatrix} -\beta\# \\ -\gamma+ \end{Bmatrix} \underline{\hspace{2em}} \; . \; . \; .$$

where the notation states that a 100 $^{o}/o$ inflectional boundary retards the rule to some extent, and a lesser effect is exerted by the "+" boundary of kep+t. However, this approach treats the two boundary conditions as completely independent, which they are not: one could not have both present--only one or the other. We can look at the boundary condition more closely in terms of its significance in the process of analysis of these terms by a hypothetical native speaker (of SE or NNE). In the case of work-ed, it is plain that the identification of the -ed suffix requires nothing more than the following paradigm:

present	past
work#Ø	work#d
roll#Ø	roll#d

The suffix occurs in various (phonetic) forms which require some processing, but the stem is unaffected. Such a transparent situation is typical of such inflections as -ly, -ing, -ness, -er; it is symbolized by the boundary symbol #. On the other hand, another analytical step is required to recognize the stem kep- as "the same" as keep-

present	**past**
keep+Ø	kep+t
tell+Ø	tOl+d

Here the shortening of //e:// to /e/ to /o/ must be recognized specifically for each case; generally, we can say that the -t,d suffix has an effect upon the shape of the stem, and only after the alternations keep- ~ kep-, tell- ~ tOl- are learned can one recognize the morpheme boundary +. This is a situation typical of derivational boundaries. Some of the analyses required are not at all obvious for sophisticated speakers of SE: for example, [əlɑfəni] is difficult for many to recognize as a relative of [æləfo:n]. Even a systematic knowledge of the effects of the suffix +y in telescope [tɛləskoʊp] ~ telescopy [təlɛskəpɪj] is not sufficient to provide recognition of [əlɑfənɪj] without some help from outside.

We therefore regard the two boundaries as related by the degree of transparency of analysis required. An inflectional boundary # may be regarded as composed of two derivational boundaries + and +, each contributing to the recognition of the analysis. The phonetic material which occurs after a + boundary contributes part of the material needed to identify the semantic element being signalled; after a # boundary, the suffix contributes all of the information required. Therefore the loss of information after a # boundary is greater than after a + boundary. (One might think at first that the loss is total, but it must be remembered that there are many other linguistic and extra-linguistic signals involved; for example, adverbs of time, yesterday, which signal the same past tense meaning as -ed, or the context of narrative in which the form is embedded as a preterit clause referring to a past event. Therefore only a part of the information is lost in any case by the operation of -t,d simplification.)

We therefore construct the -t,d simplification rule as follows:

$$(13)\quad \underset{-t,d}{\begin{bmatrix}-\text{cont}\\ -\text{grave}\\ -\text{nas}\\ -\text{comp}\end{bmatrix}} \rightarrow (\emptyset)\ /\ \begin{bmatrix}\alpha\,\text{cons}\\ \zeta\,\text{obstr}\end{bmatrix}\ \gamma(+)\ \delta(+)\begin{bmatrix}\epsilon\,\overline{\text{voice}}\end{bmatrix}\ \beta(\sim V)$$

The rule applies only to apical stops -t,d and not to the palatal or compact stops č, ǰ, since belch and bulge are unaffected just as help, bulb, milk and hang are. The most important effect, of course, is that a consonant precede the -t,d--that is, that we are dealing with a cluster.

The second or β effect is the influence of a following vowel: anything which is not a vowel favors the rule. The third and fourth effects are the morpheme boundaries discussed above which disfavor the rule. Next are two relatively minor constraints which we have not illustrated by quantitative evidence: if the cluster is voiced, the rule is favored somewhat, and if a sonorant precedes, the rule is not favored as strongly as if an obstruent precedes. It is obvious that we do not have data here to investigate thoroughly all of the relations of order among these effects: these are gross effects which have not been resolved into independent components as we shall do with the copula contraction and deletion rules of section 3.4. The one relationship of order with which we shall be deeply concerned is that which holds between the following vowel and the preceding morpheme boundary--the characteristic phonological and grammatical constraints. A simplified form of the rule would consider just these two:

$$(14) \quad -t,d \rightarrow (\emptyset)\ /\ [+\text{cons}]\ \beta(\#)\ \_\_\ \alpha(\sim V)$$

These two constraints are displayed regularly in Figure 3-5, which shows the effect of a following vowel and preceding morpheme boundary for all NNE groups in both group (or casual) and single (or careful) styles. Note that for all cases the direction of the effect is marked and consistent, and it is duplicated in both styles. The order of the two constraints is not as consistent; this higher-order relationship is illustrated by the cross-products--that is, the cases where one effect is favorable and the other is not. In most cases the phonological constraint is predominant: in a few cases, it is the grammatical effect of the morpheme boundary which is α.

In earlier studies, it was shown that in the most spontaneous NNE vernacular, the phonological constraint was predominant (Labov 1966b, CRP 3091) and that white speakers contrasted most sharply with Negro speakers in the reversal of these two effects. Furthermore, we showed when a Negro speaker switched from a style suitable for face-to-face interaction with a white interviewer to the intimate style used in her own family, she reversed the order of these constraints dramatically to favor the phonological constraint and reduce the role of the past tense morpheme boundary. In the discussion of reading -ed given below, we will be concerned with the relative positions of these two variable constraints.

Figure 3-5 shows the predominance of the phonological constraint for all groups except the Jets. It has already been stated that the most systematic exemplar of the vernacular structure is to be found in the records of spontaneous group interaction, or in casual or intimate speech. In the case of the T-Birds, the Cobras, the Oscar Brothers, and the working-class adults, it is clear that the phonological constraint is far more predominant in casual style than in careful style. In fact, the cross-products of the Cobras, Oscar Brothers and adults are actually reversed in moving from the more careful style to the spontaneous vernacular. These results justify our placing the (~V) constraint as α in rule (14).

3.2.6. The past tense in NNE. Various forms of the rules discussed above may result in a weakening of the status of the -ed suffix, especially if the variable constraints of a preceding boundary conditions are lower down in the hierarchy than shown here. However, this is not to say that the category of the past tense is weak in NNE. It is only the regular verbs which are affected. The great majority of verbs in text occurrence are irregular, and these show the past tense forms.

In this respect, NNE is sharply differentiated from the English spoken in Jamaica or Trinidad, where the irregular pasts gave and told do not occur. An NNE speaker says I gave it to him, I told him; not I give it to him, I tell him. Those familiar with WNS may feel "intuitively" that NNE uses the historical present freely; the very frequent use of "say" for the past adds to this impression, and the use of regular verbs without an audible -ed suffix reinforces it. Furthermore, the weakness of the preterit-perfect distinction leads to the general notion that the NNE past tense is weak on the semantic level.

Careful observation of NNE narrators shows that nothing could be further from the case. The simple past is used much more uniformly than in WNS; Negro narrators do not use the historical present to any significant degree. If one considers such common verbs as give, tell, keep, sell, be, go, leave, etc., it immediately becomes apparent that NNE uses the past where WNS might use the present. A typical NNE narrative reads like this:

See- he knocked me down,
and I got up,
and he start pickin' on me at first.
He had came over
   when they was buildin' it,
and we was playin' in the park.
So he came over
and he had --
he hit me.
So I walked away from him.

So he kept botherin' me.
So I went walked around the monkey race
tryin' to get away.
So I got sick and tired of runnin' away from him.
I hit him in the jaw.
So we went up on the sidewalk,
and we start fightin'.
[11, N.Y.C., #424]

A WNS speaker might substitute present forms for each of these irregular preterits; but we find that this is a rare usage in NNE.

3.2.7. Reading the -ed suffix. Our interest in the formal styles of speech as they affect -t,d simplification is focused upon more than the general pattern of sociolinguistic shifting. We are concerned with the effect of this rule upon reading performance--not merely with reading as the translation of printed symbols into sounds, but with reading as the more fundamental process of translating graphic symbols into the meaningful signals intended by the writer. The -ed suffix lies on a phonological-grammatical intersection which is especially suitable for analyzing interference of NNE structure with the speaker's ability to decipher these meaningful signals over discontinuous text.

It is clear that alphabetic skills are not sufficient for this purpose. Word-by-word decipherment of the text is not equivalent to the task of reading, which requires the perception of discontinuous signals, and the transfer of meaning from one section of the text to another.

The existence of the -t,d simplification rules (12-14) makes it obvious that one cannot tell by an NNE reader's pronunciation of regular verbs whether or not he has performed the task of reading -ed--that is, translated the -ed on the printed page into the abstract notion "Past". In 3.10 we discuss the general need for a distinction between "mistakes in pronunciation" and "mistakes in reading", for in general, we find that teachers of reading have not gone beyond the surface productions of speakers in analyzing their oral reading. Here we confine ourselves to the analysis of the reading of -ed.

We rely upon the unique homograph read in order to discover whether or not the reader has succeeded in analyzing -ed. There is no other word in English in which the pronunciation alone signals the difference between "Present" and "Past".

In order to use read to test the reader's ability to decipher the -ed suffix, it is first necessary to be sure that he (1) knows the two readings of the homograph read and (2) can use adverbial signals of past or present time to determine the correct reading. Nine sentences were used in our reading for Q-HAR-PA and most of Q-HAR-TA:

1. Last month I read five books.
2. Tom read all the time.
3. So... I sold my soul to the devil.
4. When I passed by, I read the posters.
5. Don't you dare hit your dear little brother!
6. When I liked a story, I read every word.
7. They cost a nickel yesterday, but today they cost a dime.
8. Now I read and write better than Alfred does.
9. I looked for trouble when I read the news.

Sentences 4, 6 and 9 were designed to examine the reader's competence in deciphering the -ed suffix on the printed page. It is obvious from the preceding discussion that one cannot use the pronunciation of the NNE speaker, as he is reading aloud, in order to decide whether he is reading properly. This is, of course, a fundamental question for teachers of reading--to distinguish between differences in pronunciation, governed by such rules as (12-14), and actual mistakes in reading--that is, failure to decipher the meaning 'past tense' from the printed -ed on the page.

We utilize the unique homograph read for this purpose in sentences 4, 6 and 9. If the reader has correctly read the -ed suffix, he will transfer the past tense meaning to the verb read in the next clause and pronounce that word [rɛd]. If not, he will pronounce it either [rid] or [rɛd]--most likely the former, since it is the more common form. Therefore success in this task would be signalled by the pronunciation [rɛd] in all three of the test sentences.

There are several other factors which may interfere here with the direct interpretation of the results. It is possible that the reader will decipher 'past', but not remember it when he comes to the next clause. The distance between the two was made as short as possible for that reason. The reader may, of course, have no ability to transfer meanings in general, and in particular, he may not be able to do this for tense signals. In order to check these points, we included sentences 1, 2 and 8. In sentence 1, the reader uses the past tense signal Last month to derive the correct pronunciation [rɛd]; in sentence 8, he uses the adverb now to yield [rid]. Sentence 2 is more difficult; even SE speakers sometimes do not use this unmarked context to give an automatic pronunciation [rɛd], and NNE speakers are particularly confused because in the present they do not have a third singular -s. Therefore "Tom [rid] all the time" is a perfectly normal NNE sentence. In any case, we would expect that readers who could interpret read correctly in context would get sentences 1 and 8 without difficulty.

It is also possible that the reader does not know that there are two reading pronunciations of read. Any case where the reader always said [rid] or always said [rɛd] was therefore set aside.

We will attempt to answer three questions which arise in connection with this exploration of -ed:

(1) What is the over-all level of performance of NNE readers on this task?

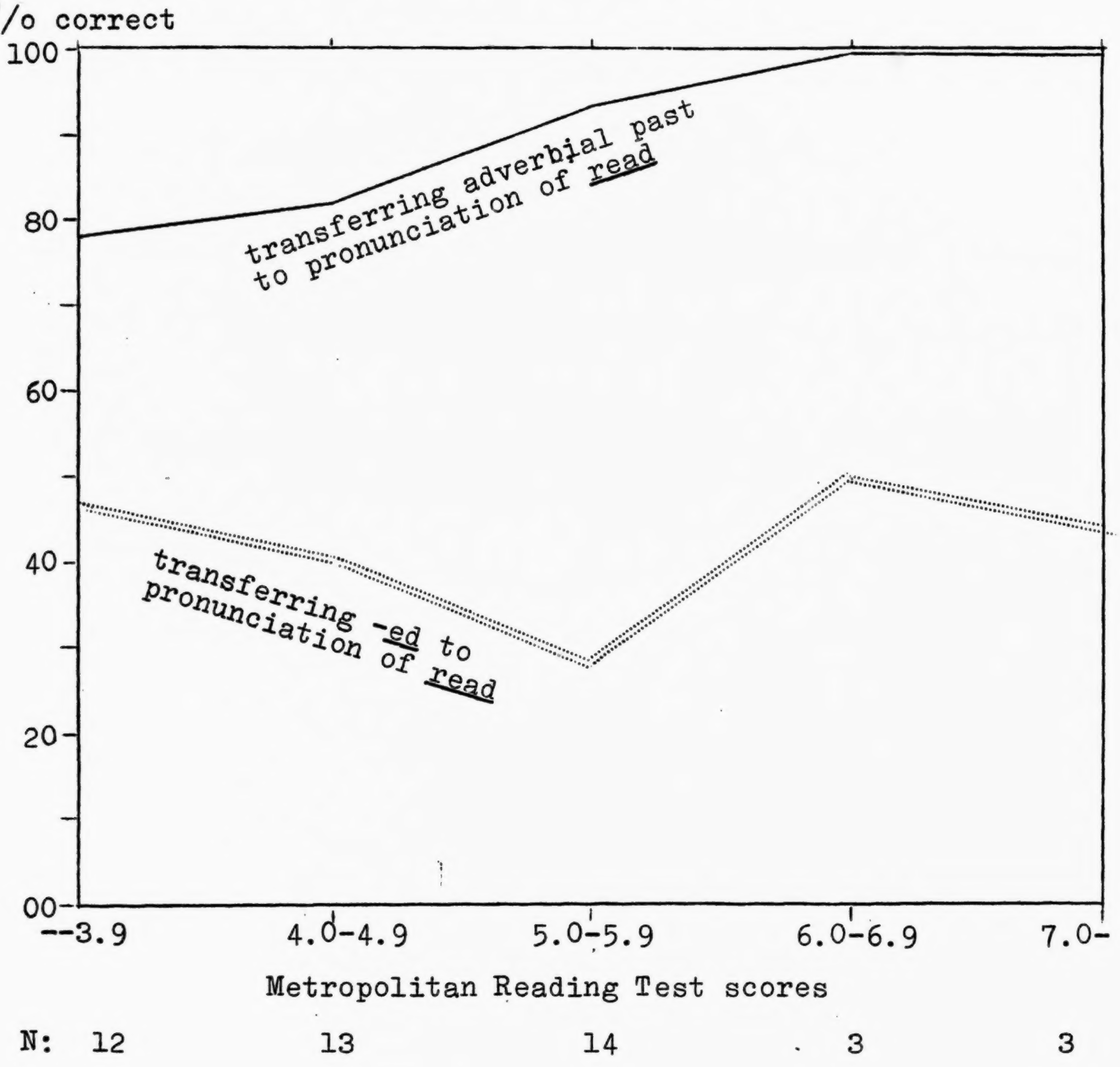
(2) How does the reading of -ed compare with other reading skills?

(3) What is the relation between the reading of -ed and the rules for -t,d simplification given in the section above?

The first two questions can be approached through a comparison of over-all reading performance as reflected in Metropolitan Reading Achievement Test; the reading of sentences 4, 6 and 9;and the reading of sentences 1, 2 and 8. We obtained full school records on 46 of the boys we interviewed,[15] including members of all of the groups we studied, some marginal and some isolated individuals. It must be borne in mind that reading performance as a whole for these subjects is very poor, particularly of the peer-group members.[16] The range of Metropolitan reading scores is therefore quite limited, and the great majority are in levels 3, 4 and 5; irrespective of age or grade. However, there are definite differences in reading scores, which correlate fairly well with reading scores constructed for our own sentences, and with Gray's Oral Reading Test.[17] The upper line of Figure 3-6 shows the relation between the correct reading of sentences 1, 2 and 8 and reading score: the level begins quite high, and moves upward with over-all advance in reading. However, the lower line shows that the ability to use -ed as a context for the past tense reading of read starts at a much lower level, moves down, and in general, shows no improvement. There has been no learning in regard to the reading of -ed, even while other reading skills have been acquired to an extent.

Reading the -ed suffix and the -t,d simplification rule. Since the basic outlines of the -t,d simplification rule hold for all of the NNE speakers, we must examine the internal structure of the rule if we are to see any connection

Fig. 3-6. Correlation between Metropolitan Reading Test scores and reading of the -ed suffix for 46 NNE speakers



Upper line: °/o correct for sentences 1,2 and 8

Lower line: °/o correct for sentences 4, 5 and 9 between these reading tests and the rules. If such a connection does appear, it will lend confirmation to the abstract rules which we derived from the study of actual behavior, providing support from a quite independent body of data. At the same time, the form of the rule may help to explain some part of the difficulty in reading.

The first point to examine is of course the area of variability noted in section 3.2.5: cross-products which relate the effect of a following vowel to the effect of a morpheme boundary. Since we know that there is room for variation among NNE speakers, we would expect that those who do best on sentences 4, 6 and 9, deciphering correctly the past tense meaning of -ed, would have a rule structure in which the morpheme boundary is the α effect, and the vowel is the β effect -- that is, where the grammatical constraint prevails over the phonological one. Such a result did not appear forcibly in the speech of any one group as a whole, although the Jets show a tendency in this direction. Good performance on the -ed test was rare-- there were only three group members who read all three sentences correctly, and it is not correlated with membership in any one group. In order to obtain a larger base for the study of -ed reading, we compared the readings of these sentences to the treatment of -t,d in speech for a set of 49 individuals, including 17 isolated individuals from the same area.

Cross-products were examined by comparing (KD^v_{mm}) and (KD^k_p) in the group sessions, in the speech of single interviews, and in reading other text besides the sentences used above. For each individual, therefore, there were three opportunities to compare these critical sub-variables. In each case, if data was available for comparison, there were three possibilities:

a. $KD^v_{mm} < KD^k_p$

b. $KD^v_{mm} = KD^k_p$

c. $KD^v_{mm} > KD^k_p$

The results of this study are shown in Table 3-8a. In only one group of readers was (c) the dominant case: that is, only for this group was the effect of the morpheme boundary greater than the effect of a following vowel in holding back the operation of the -t,d deletion rule. This group was the relatively small group of seven subjects who read the three sentences 4, 6 and 9 perfectly, deciphering correctly the past tense meaning of -ed and transferring it to the pronunciation of read.[18]

TABLE 3-8a

PREDOMINANCE OF GRAMMATICAL OVER PHONOLOGICAL CONSTRAINTS ON -t,d DELETION VS. SUCCESS IN READING THE -ed SUFFIX

Value of phonological-grammatical cross products in three styles	No. of sentences with past tense meaning derived from -ed suffix			
	0/3	1/3	2/3	3/3
$KD^{v}_{mm} < KD^{k}_{p}$	15	18	7	5
$KD^{v}_{mm} = KD^{k}_{p}$	9	9	6	2
$KD^{v}_{mm} > KD^{k}_{p}$	13	7	3	9
N:	16	17	10	6

TABLE 3-8b

CONSISTENCY OF GRAMMATICAL CONSTRAINT ON -t,d DELETION VS. SUCCESS IN READING THE -ed SUFFIX

No. of sentences 4,6,9 with past tense meaning correctly derived	No. of sub-categories in which the grammatical constraint on -t,d deletion appeared as		
	$KD_{mm} > K_{p}$	$KD_{mm} = K_{p}$	$KD_{mm} < K_{p}$
0/3	52	18	13
1/3	41	23	22
2/3	16	15	5
3/3	25	7	0

Av. reading scores: 0/3 - 4.7; 1/3 - 4.6; 2/3 - 4.7; 3/3 - 4.7

We are still dealing with a rather weakly determined and fluctuating effect, and more precise data would be helpful. These can be obtained by comparing the operation of the rule (14) for α and β in as many comparable sub-categories as possible. The largest body of data for each individual is the single interview, and within this data we can make such a comparison in the following sub-categories:

(a.) (VD) vowel preceding the -t,d

(b.) (ɫD) underlying ɫ preceding

(c.) (sD) s preceding

(d.) (K^oD) other voiceless consonant preceding

We can also study the data from

(e.) Group sessions

(f.) Reading of text other than sentences discussed above

(g.) Reading of word lists and minimal pairs

The data in the last three categories is too limited to allow the detailed breakdown of the single interviews. But in each of the seven sub-categories above, we can make a separate comparison of (KD^k_{mm}) vs. (KD^k_p) and (KD^v_{mm}) vs. (KD^v_p). There are thus fourteen possible points of comparison, although the data does not provide a definite answer in all of them for most of the 49 subjects. Table 3-8b shows the results: we find that there is one group for which there were no cases at all of the grammatical constraint reversed so that $KD_{mm} < KD_p$: the group of speakers who were able to decipher the past tense meaning of -ed three out of three times.

It was observed above that the constraint of a preceding morpheme boundary operates uniformly upon almost every individual and upon every group. The totals of Table 3-8b show that this is indeed a very strong tendency even in such small sub-categories as (a-g) above. It was reversed in only 17 °/o of these cases. By contrast, Table 3-8a shows no such clear-cut orientation towards the ordering of the cross-products KD^v_{mm} and KD^k_p, although we have seen that individual groups do lean strongly in one direction or another. Table 3-8b clearly demonstrates, then, that the grammatical constraint of rule (14) is most firmly fixed in the behavior of that sub-group which reads the -ed suffix most competently. The second best sub-group, who read the -ed suffix 2 out of 3 times, did not do as well—in fact, there are no clear-cut differences between any of the other groups. One would not expect to find any regular distribution across the 0/3, 1/3, 2/3 groups, since guessing might produce any of these patterns if the reader knows that there are two readings of the homograph read. If the reader has a firm grasp of the fact that the -ed signals the past tense, then he should be able to reproduce the pronunciation [rɛd] in all three sentences 4, 6 and 9, for it was shown in Figure 3-6 that the ability to transfer a past tense meaning in general to the pronunciation of read runs far ahead of the ability to decipher and decode the -ed signal.

From the last line of Table 3-8b, it is again evident that there is no correlation between general reading skill and the ability to decipher the -ed suffix as a signal of the past tense. This finding strengthens our inference that it is the form of a specific linguistic rule rather than a general deciphering capacity which differentiates the four groups of speakers.

Table 3-8b has significance for our general understanding of the process of reading, for it shows that the process of deciphering signals on the printed page can be controlled by underlying linguistic rules of an abstract nature. But these findings have even greater significance for our understanding of linguistic structure and the nature of linguistic rules. We have provided behavioral evidence to support independently the body of data which lies behind rule (14). Note that the 3/3 group did not show the command of the -ed meaning by an invariant refusal to delete the -t,d in tried, passed or rolled: on the contrary, the deletion of this final consonant is not uncommon in their speech patterns. Their competence is shown in the fine-grained adjustment they make in the frequency with which -t,d is deleted when it forms a part of the stem, and when it is a past tense signal.

Comparison with white non-standard speakers. If the findings of Tables 3-8a and b have any explanatory value in dealing with reading difficulties, it must follow that speakers of other English dialects, who have different -t,d deletion rules, should have less difficulty with sentences 4, 5 and 9. We can make such a comparison through the records of the white Inwood group, which was included in the over-all investigation reported here to allow us to contrast white working-class peer groups in Manhattan with Negro peer groups.

The Inwood groups are located in upper Manhattan, in a neighborhood where the chief contact of white with Negro boys is in school. In the residential neighborhoods, the Inwood boys belong to named groups and informal hang-out groups which are entirely white: it would be out of the question for any Negroes to be included.[19] As noted in 2.1.5, the paradigm of group study described above was applied to a pre-adolescent Inwood group, comparable to the Thunderbirds, and an adolescent group, comparable to a sub-group of the Jets. There were four members in each group, including two pairs of older and younger brothers--a common pattern in the Jet and Cobra areas as well.

The -t,d deletion pattern of the Inwood groups operates at a considerably lower level than for the NNE groups. Both the pre-adolescent and adolescent groups show approximately the same level, at about 30 $^{o}/o$ lower than Table 3-5, which may be summed up in the following aggregate figures:

	(KD^{k}_{mm})	(KD^{v}_{mm})	(KD^{k}_{p})	(KD^{v}_{p})
ratio of deleted to total -t,d forms	93/138	8/45	8/34	2/62
per cent deletion	67	19	23	03

This pattern may be described by rule (15):

$$(15)\qquad t,d \rightarrow (\emptyset)\ /\ [+\text{cons}]\alpha_1(\#)\ \_\_\ \alpha_2(\sim V)$$

with the grammatical and phonological constraints both shown as α, but with a lower input variable k_o than for the NNE groups. It is worth noting that this is quite close to the pattern of middle-class Negro speakers; our sample of twenty middle-class residents of the middle-income Lenox Terrace and Riverton apartment on East 145th Street shows a pattern such as the following:

	(KD^{k}_{mm})	(KD^{v}_{mm})	(KD^{k}_{p})	(KD^{v}_{p})
ratio of deleted to total -t,d forms	52/76	4/27	7/39	5/39
per cent deletion	69	15	18	13

Both patterns represent strong constraints upon the deletion rule, so that the great majority of deleted -t,d's are in monomorphemic stems before consonants, where they are most easily reconstructed.

The reading of the Inwood groups was considerably better than the NNE groups, although several of the pre-adolescents were poor readers (one refused to read altogether). The pre-adolescents did not do at all well in reading the -ed suffix: none of the three who read the nine sentences gave the correct pronunciation of read as [rɛd]. This suggests that there is an inherent difficulty in reading the -ed suffix for boys of the 9-13 year old range, and that the consonant cluster patterns of the pre-adolescent NNE groups only partly explain their behavior in reading. However, the results with the teen-age Inwood groups were quite different than with the Jets and Cobras. Three of the four read sentences 4, 6 and 9 perfectly. Of the twenty-three NNE adolescents, only three did so. The comparison is striking:

	0/3, 1/3, 2/3	3/3
Inwood TA	1	3
Jets and Cobras	20	3

Table 3-8b indicates that over-all reading level does not account for differences in the reading of the -ed suffix. This comparison of adolescent Negro and white speakers confirms the conclusion that the variable rule for -t,d deletion is a controlling factor in this aspect of reading performance.[20]

3.2.8. Social stratification of (KD). So far, we have discussed only the major outlines of the (KD) variable for the central groups of NNE speakers--that is, the vernacular pattern which is best exemplified in the excited speech of group sessions, and which is modified only slightly in the more careful speech of single interviews. Table 3-9 shows a wider range of data, including more formal styles and speakers outside of the basic vernacular. Since (KD) seems to be a continuous variable with inherent and systematic variation, it seems quite likely that it would be sensitive to the kind of sociolinguistic stratification which was observed in 3.1 for (r) and (dh).

The basic pattern of the two major constraints is preserved in all styles for all speakers or groups of speakers

TABLE 3-9

SOCIAL AND STYLISTIC STRATIFICATION OF (KD) SIMPLIFICATION

	Style A				Style B				Style C				Style D	
	KD_{mm}		KD_p		KD_{mm}		KD_p		KD_{mm}		KD_p		KD_{mm}	KD_p
	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V		
T-Birds (5/8)	97	36	91	23	91	59	74	24	91	36	65	56	34	05
Aces (4)					98	64	85	43	100	38	89	75	42	09
Lames (16)					97	50	50	20	77	44	56	38	38	08
1390 Lames (4)					93	61	19	16	75	50	75	25	33	11
Cobras (5/9)	98	45	100	12	97	76	73	15	100	77	50	43	40	07
Jets (14/13)	98	82	60	05	90	49	44	09	92	45	50	53	54	04
Oscar Br. (6/6)	97	54	85	31	97	69	49	17						
Inwood (3/8)	67	09	14	04	68	26	30	03	100	20	50	00	29	43
Adults														
Middle cl. (14)	79	32	30	00	60	28	19	04					07	02
Working cl.														
U/No. (4)	90	56	84	25	90	40	19	09					50	00
U/So. (7)	93	21	41	18	89	40	47	32					06	05
L/No. (5)	87	45	49	16	61	35	33	05					36	00
L/So. (8)	98	46	61	35	93	70	72	32					53	24

Style
A: group or casual
B: single or careful
C: reading
D: word lists

Nos. in parentheses indicate subjects in Style B or Style A/Style B as shown in Table 3-9 . Stylistic and social stratification can therefore be observed in two directions: (a) the absolute numerical level of the variables, and (b) the cross products which show the ordering of α and β.

It was noted above that only one of the NNE peer groups showed that the effect of the morpheme boundary was equal to that of the following vowel--the α_1, α_2 pattern is unique to the Jets. The lames also show this pattern, as well as the lower working class group raised in the North, and the middle class adults in their casual speech at the lowest level of all: both cross products are simplified at about 30 per cent, as opposed to about 50 per cent for the others just mentioned. In careful speech, the middle class adults go further and actually reverse the position of the two major constraints: the grammatical constraint becomes primary, and the effect of a following vowel secondary. Only one other adult group shows this pattern, and then only in careful speech also: the upper section of the Northern working class. Among the youth, we find such a reversal only in one small sub-group, marked "1390 Lames". These are the boys in the same project as the Thunderbirds, who are especially marked in not belonging to the dominant peer group of the building.

We can accord special significance to this stylistic and social marker, since it is the characteristic WNS and SE pattern. As noted in our first studies of white vs. Negro adults (Labov 1966d, CRP 3091), this is the chief difference between the two groups: for whites, the grammatical constraint is α, and the phonological effect is β. We noted that the dramatic shift of Dolly R., in moving from casual speech with a white interviewer to intimate family speech over the telephone, displayed this same fundamental shift in rule structure. The extreme shift in relations of the variables is shown here by the Northern, upper working class group, who move from α_1, β_2 to β_1, α_2. The middle class group, on the other hand, makes a less radical shift from α_1, α_2 to α_1, β_2.

Turning away from the relations of the variables to the actual level of the input, we see that the level of (KD) before consonants with monomorphemes is extremely high in all groups in any style of connected speech. For the peer groups it is well above 90 per cent simplification. The only groups which show a lower figure are middle class adults with an index of 79 in A and 60 in B, and the Northern lower working class group which also declines in careful speech. The white Inwood group does not show the same high values as any of the NNE peer groups--no more than two-thirds of the clusters are simplified in this most favored position.

Returning to the peer groups, we note that only the lames show a significant decline of (KD_{mm}) before consonants in reading--dropping down from 97 to 77. (This is characteristic of both the VDC interviews and the isolated individuals in 1390 5th Ave.) On the whole, there is very little change in reading style for the peer groups, as far as the pattern and level of consonant cluster simplification is concerned. The simplification of past tense clusters before vowels--the lowest values in speech--is not particularly low in reading style. For all groups, the past tense clusters show very little simplification in style D, the reading of isolated word lists. Faced with the word passed, most speakers pronounce the -d to produce an [st] cluster, even more often than they pronounce it in speech when they say passed out. The only group which shows any degree of simplification of (KD_p) in word lists is the Southern lower working class group, which is also highest for (KD_{mm}) in this style.

On the whole, the (KD) variable does not show as regular a pattern of social and stylistic stratification as some of the other phonological variables. The basic patterns are relatively stable; the two main points for both social and stylistic shifting are (1) the downward shift in (KD_p) before consonants, in moving from group to single style; this appears in the Thunderbirds, the Cobras, the Jets, the middle class adults, and the Northern sections of the working class (but not the Southern sections or the Inwood groups); and (2) the downward shift in the number of (KD_p) clusters simplified in style D. The result of the first shift is the change in the relationship of the variables which marks the difference between NNE and adult white style; note that the behavior of the Inwood group makes us suspect that the same change may be operating in white working class youth, and that this shift towards the recognition of the grammatical variable is fairly general in non-standard English, as the speaker grows older. The second shift is characteristic of all NNE peer groups, and of course white peer groups will show this as well; it is another aspect of the recognition of the grammatical status of the -ed.

The most significant fact about (KD_p) is not behavior in formal style, or this shift, but rather the low level of simplification of past tense clusters before a vowel in the great bulk of single interviews. Except for the preadolescents, only the Southern group shows a sizeable degree of simplification in this most favored position for clusters. The others keep to a level below ten per cent, as a rule. Of course in all cases and all styles, speakers demonstrate their knowledge of the underlying forms by simplifying clusters less when they contain a morpheme boundary than when they do not, and less when they occur before a vowel than when they do not.

3.2.9. Hypercorrection of -ed. One measure of the speaker's internal knowledge of a grammatical form is the consistency with which he uses it in the appropriate environment. As we shall see in dealing with the -s inflections, there are several SE grammatical forms which simply do not exist in NNE; although speakers learn from contact with other dialects that such inflections exist, they are never certain of quite where to use them, and the result is a series of sporadic and irregular hypercorrections, and no consistent pattern emerges. A few such irregularities appear with the copula, but not enough to disturb the basic pattern. In the case of the past tense morphemes, we find few such irregularities of placement in our data.

There is a good supply of hyper-Z in our data, as shown in the following section. And comparable to such frequent hyper-Z types as (20c) He don't belongs with them (discussed in 3.3), we have several cases of hyper-D:

(15') ...but it did tasted like chicken. [35, S.C., #792]

There are other cases of the -ed suffix being added to a non-finite form.[21] The same speaker did use two instances of another type of "hypercorrect" form:

(15'') I loveded [lʌvdəd] that!
(15''') I loveded to fight...

Hypercorrection is typically an individual matter, and the sporadic and irregular character of its distribution reflects the fact that these forms are not controlled by any rule of language, in the sense of a grammar used by a speech community. The same speaker is unique among our informants in her penchant for hyper-past forms. She also said I would threw them down, and She useta hadda pick at me. Both are outside of any regular NNE pattern.

The hypercorrection of loveded is typically a form used by pre-adolescent youth in reading. We have no more than half a dozen such cases in the readings of the nine sentences, but we find that most teachers are quite familiar with them, since they are not infrequent in the oral reading of grade school children. We find such forms as passted [pæstəd] and likeded [laɪktəd] from pre-adolescent youth, including two Puerto Ricans.

These forms are not "hypercorrect" in the sense of (15'); they are not cases of an -ed being added in the wrong environment in the gross sense, since these forms occur only when the regular past is appropriate. They seem to represent a "double" past, comparable to the "double" (or "triple") plural in childrens, or double possessive in

mines. The speakers do not seem to recognize that the first [t] "stands for" the past, and they add another past tense morpheme--in this case the allomorph [əd] which is formally appropriate after -*t*. Speakers are behaving as if the cluster is -*kt* and not -*k#d*, so that [pɪkt, pæst, laɪkt] are taken as the stems of verbs. The traditional view is that this is the result of analogical sets such as the following:

	phonetic form	→	underlying form
(A)	[æk]		act
	[æktəd]		act#d
	[pɪk]		pict
	[pɪktəd]		pict#d

A second alternative which would account for [pɪktəd] and [pæstəd] is that the reduplication of the suffix is part of a recursive process which breaks up difficult consonant clusters, in a way analogous to the resolution of *ghosts* as [goʊstsə̥sə̥sə̥s], discussed in 3.9 below in the data on memory tests. But this type of recursion occurs only under great stress, as we will see, and the *pickted* forms occur even in natural speech, as in (15'') and (15'''). Furthermore, we never get more than one extra -*ed*.

The third possibility is that the re-analysis does not consist of setting up a new base form *pict*-, but rather setting up an alternate suffix *#ted*, on the basis of *expected*, *tested*, *attempted*, *acted*.

	phonetic form	→	underlying form
(B)	[æk]		ack
	[æktəd]		ack#təd
	[pɪk]		pick
	[pɪktəd]		pick#təd

This is the converse of the analysis given above, relying upon the fact that final [t] in monomorphemic forms occurs less than ten per cent of the time, and that it is frequently dropped before a following vowel. Thus we do get forms such as *jus' a secon'* and *pas' eight o'clock*, which support re-analysis (B), but we do not get *_picting on me_, which would support re-analysis (A). Thus the young NNE speaker forms the hypothesis that there are alternative suffixes, #*d* ~ #*ted*, parallel perhaps to *a* ~ *an*, #*in* ~ #*ing*.

The data as a whole plainly does not support such an hypothesis, for there is no conditioning factor which would explain the appearance of one form rather than another, and in at least half the cases of *just*, *past*, *act* before a vowel, one can hear the -*t* of the stem emerging. Therefore it is natural that most speakers quickly abandon this hypothesis, and their underlying forms inevitably conform to the adult model, common to both NNE and SE.

3.2.10. The relation of variable rules to linguistic competence. Hypercorrection is a process which can be analyzed and understood, but it stands outside the normal operation of linguistic rules: it is not typically rule-governed behavior. In this report, we are interested in describing the fundamental set of rules which reflect the vernacular NNE pattern as used by the entire speech community. The regularities inherent in Tables 3- 6,7,9 show that there is systematic and inherent variation within this rule-governed behavior. Table 3-9 confirms the fact that every sub-group within the community, in every style, obeys the two major constraints upon the -t,d simplification rule: the effects of (1) a following vowel and (2) a preceding morpheme boundary. We will not encounter, anywhere in this report, a more regular example of systematic variation. It is therefore appropriate to review here the question of the theoretical status of variable rules, and their relation to "linguistic competence" as commonly conceived.

One view of the matter might be that such variation in the realization of clusters is not an aspect of the speakers' competence of knowledge of the language, but merely a matter of "performance" variation--some difficulty in articulating or perceiving the clusters in certain positions. As far as the effect of a following vowel is concerned, there is a certain plausibility in this argument. In the next section, we will see that re-assignment of final consonants to the beginning of the next syllable is a regular process of surface phonetics; final clusters are indeed less difficult to articulate before following vowels as a result of this process. But there is no obvious connection between the notion of "performance" and the effect of a preceding morpheme boundary.

To attribute the effect of a morpheme boundary to the limitations of performance, one would have to argue in a very complex way: that competent speakers normally overcome the articulatory difficulty of clusters when a past tense morpheme is involved...that in some way, their desire to represent this morpheme interacts with the performance of articulation to increase the effort devoted to it. When we consider that this is only a variable relation exhibited by NNE speakers, rather than an absolute rule, we would have to say that there is a corresponding "semantic" difficulty which reduces the level of awareness of the morpheme, and therefore the amount of desire and the amount of extra effort devoted to overcoming articulatory difficulty. The entire argument plainly suffers from an excess of unobservable constructs.

If, however, we should follow this logic, and take the step backward of removing the variable rules and constraints from the representation of competence of the native speaker, we would then have only three options with which to account for the data underlying our earlier concept of φ , that is, the proportion of cases for which the rule actually operates:

0	the rule does not apply at all
~	the rule applies optionally, in "free variation"
1	the rule applies categorically, in all cases

We can then construct an abstract model of the application of the consonant cluster simplification rule to various "ideal" and "homogeneous" speech communities (Chomsky 1965:3). Instead of the variables (KD_{mm}), etc., we have subcategories defined by the categorical environments /K__##K, etc. Thus the application of the rule may be described by the following rough abstractions from the data for the various dialects we have been considering. [SLE: standard literary English; SCE: standard colloquial English]

	environment			
dialect	K__##K	K__##V	K#__##K	K#__##V
"SLE"	0	0	0	0
"SCE"	~	0	0	0
"WNS"	~	~	0	0
"NNE(a)"	~	~	~	~
"NNE(b)"	1	~	~	0
"NNE(c)"	1	1	1	1

These assignments of 0, ~, 1 represent abstractions to the nearest available category, as suggested by the quotation marks: Only "NNE (a)"is an accurate if somewhat vague representation of Table 3-9a. These symbols then state that the consonant cluster simplification rule is in free variation for all subcategories.

It must be pointed out that the speaker's knowledge of the subcategories is preserved in the underlying representation. There is only a limited amount of hypercorrection, and as we shall see in 3.5., much of this is due to a rule of tense transportation. "NNE (a)" does not obliterate the fact that speakers know that -ed is used in past tense context. However, we lose a very important aspect of competence when we lose the variable constraint of a **morpheme boundary.** We imply that the speaker behaves as if the **morpheme boundary** made no difference--as if there were no more semantic consequences to the loss of -ed than to the loss of a monomorphemic -t. We might therefore attempt an abstraction such as "NNE(b)", which elevates the first subcategory to 1, and lowers the last to 0; as we have indicated in the discussion of 3.2.8, there is some justification for this in the data. By such a step we can claim to have registered a distinction between monomorphemic and past tense in both cases: before consonants, the speaker opposes a monomorphemic 1 to a past tense ~, and before vowels, a monomorphemic ~ to a past tense 0. Thus we can make optimal use of our limited conventions.

But there are more than a few weaknesses of such an abstraction as "NNE(b)". In the first place, it fails to distinguish between the "1" assigned to the monomorphemic K__##K category and the "1" which must be assigned to such truly categorical rules of NNE as the vocalization of final r or the distribution of negative concord within the clause (which is variable for all WNS speakers but constant in NNE (see 3.6 below)). It seems to be inevitable that for a given set of twenty K__##K clusters, an NNE speaker will preserve one or two. We might account for this fluctuation by positing "dialect mixture" of "NNE(b)" with "WNS":

"NNE(b)"	+	"WNS"		performance
1	+	0	⟶	~

Such dialect mixture is usually shown by rapid and unaccountable oscillations, corresponding to the sort of evidence on (Z) which we will present in 3.3. Such a mixture is not systematic in itself--the speaker is represented as oscillating unaccountably, within sentences or phrases, from one system to another. The extremely regular patterns of (KD) do not, however, conform to the irregular and sporadic character of such dialect mixture. And if we should accept this notion, we have not accounted as yet for the appearance of the ~ notation in K#__##K: is this "free variation" caused by dialect mixture as well, and if so, by what dialect? More seriously, what would account for the observed frequency of simplification in K#__##V, which is shown in "NNE(b)" as 0, but shows a sizeable percentage in our data?

Both of these questions can be answered by positing another abstraction, "NNE(c)" in which the rule applies categorically in all environments. Then the abstraction "NNE(b)" represents dialect mixture of the original and homogeneous "NNE(c)" and the abstraction labelled "WNS". Thus dialect mixture yields

	"NNE(c)"	+	"WNS"	⟶	"NNE(b)"
K__##K	1	+	~	⟶	1
K__##V	1	+	~	⟶	~
K#__##K	1	+	0	⟶	~
K#__##V	1	+	0	⟶	0

But these symbols do not add up in any consistent fashion. There are obviously other combinations that we could work out, and further abstractions to account for the failure of these to add up. But it should be immediately apparent that the various "NNE(a,b,c)" constructs involve an infinite regress which attempts to save the data by patching an inadequate theory. The competence of the native speaker goes beyond the categorical framework of the 0, ~, 1 system, and it seems a simple and logical step to enlarge our notion of "rule of grammar" to respond to the straightforward and impressive regularities of Tables 3- 6,7,9..

There are even deeper considerations for recognizing inherent variability and systematic constraints as being characteristic of human languages. In the course of linguistic change, various rules of a grammar pass through such variable stages, and after various re-orderings of the variable constraints and gradual (or sudden) changes in the level of the input variable, pass again into the favored categorical form. But when this happens, there are usually re-structurings in the phonological or grammatical system to supply the missing information.

Such a compensating development can be seen in the Scots consonant cluster simplification pattern. In various Scots dialects, and in the standard language, there is a rule which has deleted final -*t* after *p* and *k*, yielding *perfec*', *stric*', *ac*', *corrup*', *temp*'. The rule evidently reached a categorical state some time ago, before both consonants and vowels, so that we have *empy* for Southern English *empty*; even when the next word begins with a vowel we have

(15"") ..so I thocht it juist as weel to ac' up to the
character [so ə θoxt ɪt dǰyst əz wil tə ɑk ʌp
tə ðə kɑrəktər] (Grant and Dixon 1921:371)

It is obvious that such a categorical rule would lead to the loss of the regular past tense after a great many verbs. But the rules for the preterit form in Scots have adjusted to the situation. The base form is -*t* (or possibly -ət). Clusters are not formed after stops, however. After fricatives and other continuants we can have -*t*: *pronounced* [prənunst], *giggled* [gɪglt], *flattered* [flɑtərt]; but after stops, we regularly have -*ət*: *landed* [lɑndət], *expected* [ɪkspɛkət], *looked* [lukət], *nipped* [nɪpət]. (All examples are taken from the same text in Grant and Dixon 1921:368-71).

It is just this type of re-structuring that we do not observe in NNE, and yet the fundamental knowledge of the past tense is well preserved. Our conclusion is that inherent and systematic variation occurs within the linguistic competence of native speakers, and that the variable rules developed in this report are required to account fully for native speakers' knowledge of the language.

3.3. The -s,z inflections

In addition to the -t,d clusters discussed in section 3.2, the second major set of final consonant clusters are those ending in -s or -z. The voicing patterns of the clusters are exactly parallel to the -t,d clusters: if the first member is an obstruent, the voicing of the second member is determined, but not if the first member is a sonorant. However, if a morpheme boundary intervenes, then voicing assimilation is obligatory. That is, all words ending in sonorant or vowel plus -s are monomorphemic (it may seem that i's, tha's and wha's contradict this principle, but in the final analysis it is correct: see section 3.4). But instead of one grammatical possibility, we have at least seven to cope with, and since the various -s,z types are treated very differently from one another, it is hardly possible to write a general -s,z simplification rule. It will appear that some of the -s,z elements of SE are missing entirely from NNE, and some are quite intact.

3.3.1. Types of -s,z finals. The final -s or -z of SE words may represent one of the following types; the abbreviations indicated will be used throughout this report.

a.	monomorphemic	box, else, six (adz)	(Z_{mm})
b.	plural	pots, pods, fishes	(Z_{pl})
c.	3rd singular	works, tells, pushes	(Z_{v})
d.	possessive	Pat's, John's, Charles's	(Z_{pos})
e.	adverbial	besides, sometimes, nights	(Z_{adv})
f.	is	Boot's here, John's here, Charles's here.	
f'.	is	i's, wha's, tha's	
g.	has	John's been here.	
h.	us	let's go	

[NB: The symbols (KZ) will be used to indicate clusters, (VZ) to indicate post-vocalic, single -s,z.]

Only the first five will be discussed in this section. The forms of the copula, f and f', will be the subject of the following section 3.4. The form has is essentially confined to SE, since invariant have is predominant in NNE; the deletion of have is discussed in 3.4. Finally, the form 's of let's is not part of the pattern considered here. This -*s* is not subject to the general processes of contraction and voicing assimilation: we do not obtain [gɪvzənɪkɫ] for *Give us a nickel* or [šozəraʊn] for *Show us around*.

3.3.2. *General approach to the (Z) variables*. The parentheses notation for (Z_{mm}) etc. imply that at least the first five -*s*,*z* inflections are variable in NNE, and this is indeed the case. For all speakers, sometimes we find clusters of types a–e, and the following section will show that this is the case with f, f' and g. The '*s* representing *us* seems to a fixed form of a different type.

To say that these features are variable is not the same as to say that we are dealing in each case with phonological processes of consonant cluster simplification which remove an underlying //Z// by low level rules. In section 3.2. we saw that there is plainly an underlying //D// inflection in NNE, on the basis of two sets of facts: (1) almost every speaker recognized the existence of the morpheme boundary in //p s d//, etc., by preserving the cluster more often than with monomorphemic forms, before vowels; this regularity showed up with single (VD) forms as well; (2) almost every speaker showed the effect of a following vowel in reducing consonant cluster simplification of (KD_p) as well as (KD_{mm}), and this effect showed up in (VD) forms as well. Thus we argue that there must be a systematic basis for such extraordinary regularity; within this systematic variability the speaker's knowledge of the $//D_p//$ category is clearly seen. We can now examine the (Z) variables to see if all, some or none of these reflect underlying //Z// inflections in NNE.

The phonological environments which were studied, in addition to the grammatical sub-classes given above, are:

a. Cases where the (Z) occurred before a following consonant or finally (__K) vs. those in which it occurred before word boundary and a following vowel (__V). Clusters internal to a word were not considered.

b. (NZ): clusters with nasal plus [z].
c. (K^vZ): all other voiced clusters.
d. (tZ): clusters with [t] plus [s].
e. (K^oZ): all other voiceless clusters.
f. (VZ): single [z] after a vowel.

The coding of the variants of the (KZ) variables employed the following scheme:

(KZ-x)	both elements present
(KZ-1)	first element present
(KZ-2)	second element present
(KZ-0)	neither element present

In the case of the (VZ) variables, it is of course simply a matter of presence or absence of the sibilant. For (KZ), the number of cases where both elements were deleted was negligible, primarily the result of the application of other rules such as the vocalization of (ɨ); underlying r was treated as vocalic here. The cases where the first consonant disappears are primarily those -ts clusters considered under f' above, and dealt with in greater detail in 3.4. Therefore the basic opposition which is studied here is (KZ-1)/N, and the data in Table 3-10 shows the frequency with which a sibilant appears in the total population of utterances where // Z// is expected in SE. (When the next word begins with a sibilant, the distinction is of course neutralized.) It will shortly be seen that such an over-all approach breaks down, but it will provide us with the basic information that we need for a correct analysis. We have a great deal of data on plurals (KZ_{pl}), (KZ_{v}), and a fair amount on (KZ_{mm}). There is less information available on (KZ_{adv}), and not as much on (KZ_{pos}) as we would like. Only a small number of peer-group members were analyzed for (VZ) data, although there is considerable data here for adults.

3.3.3. Monomorphemic clusters (KZ_{mm}). There is relatively little data on monomorphemic clusters, since they occur only in one phonological sub-class ($K^{o}Z$) in words such as six and box. We observe that the Thunderbirds are the only group who simplify any significant number of these clusters in the group sessions; there is a sprinkling of cases throughout the other groups. But every cases which was observed occurred before consonants: there were nonebefore vowels. It is obvious that NNE members know the underlying forms of six and box, and the occasional simplifications are simply the result of phonological processes. The effect of a following vowel is absolute and conclusive in this case.

3.3.4. The plural. There is considerable interest in the NNE plural, since many observers have noted that speakers occasionally do not use the plural where SE uses it. Several of the teaching methods prepared for NNE speakers begin with drills on the plural forms, and even teach Negro children when to use a [z] and when to use an [s] in forming their plurals. It can also be observed that there are some difficulties in reading the plural; in our own readings (see

TABLE 3-10a

QUANTITATIVE ANALYSIS OF THE (Z) VARIABLES FOR PRE-ADOLESCENTS AND ADOLESCENTS

	(KZ_{mm})				(KZ_{pl})				(KZ_{v})				(KZ_{adv})	
STYLE	A		B		A		B		A		B		B	
	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V
T-Birds (8) (8)	40	00	00	00	13	08	15	09	60	100	61	70	42	11
Aces (4)			09	00			08	00			42	71	53	13
Cobras (9)	00	00	03	00	30	00	04	04	53	67	93	86	55	10
Jets (17)	00	00	00	00	09	00	06	00	55	78	59	70	35	91
Oscar Br.(6)	07	00	06	00	21	10	11	06	67	68	63	61	51	62
Lames (20)			02	00			14	09			56	64	56	28
Inwood (7)	00	00	00	00	18	00	00	00	00	00	00	00	00	00

	(KZ_{pos})			
	A		B	
	_K	_V	_K	_V
All NNE peer groups	72		58	50

N:

5	2	13	20	63	26	100	56	10	11	67	40	33	9
		11	4			59	33			33	21	32	8
14	7	34	17	69	11	158	66	19	6	73	63	22	7
11	4	30	6	188	61	230	81	55	27	61	33	23	10
28	19	36	17	169	61	196	80	129	59	86	83	35	13
		53	22			198	103			116	97	82	25
27	1	44	6	76	14	149	38	30	23	71	47	27	1

TABLE 3-10b

QUANTITATIVE ANALYSIS OF THE (Z) VARIABLES FOR ADULT SPEAKERS

	(KZ_{pl})				(KZ_v)				(VZ)			
	A		B		A		B		A		B	
	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V	_K	_V
Middle class (14)	02	00	01	00	00	00	00	00	00	00	02	00
Working class												
Upper No.(4)	10	13	01	00	31	00	00	00	14	00	07	00
Upper So.(7)	14	00	06	00	00		23	47		00	10	00
Lower No.(5)	03	00	00	00	13	00	16	00	14	00	12	00
Lower So.(8)	10	14	12	19	33	20	64	82	15	00	28	00

N:

98	36	196	81	6	9	21	7	59	21	104	51
40	16	69	52	16	3	16	18	14	1	30	4
79	38	59	42	16	3	19	13	16	6	4	3
36	15	97	42	3	2	17	19	29	7	17	10
69	22	111	36	11	5	11	9	27	10	32	9

below) the word posters frequently occurred without the -s. We have other reports of difficulty in teaching NNE members to read the plural. Nevertheless, we are convinced that there is far more interest in the problem of the plural than the case deserves; that the NNE plural is quite intact, and that the small amount of disturbance in the plural is the result of (a) phonological processes of consonant cluster simplification (b) several individual items that have zero plurals in NNE, and (c) a few individual speakers who show much less regularity in plural inflections than the norm for NNE.

Table 3-10a shows the basic data on the (KZ) plurals, based on a very large number of cases (2,285). We observe that the amount of (KZ_{pl}) simplification is quite variable before consonants in group sessions, ranging from 13°/o for the Thunderbirds to 30°/o for the Cobras. It is interesting to note that the index rises with age. Is it possible that the Oscar Brothers in their late teens have less notion of the plural than the T-Birds? In other respects, we have seen that the Oscar Brothers (not properly a named group) is closer to the adult system than any other group. Furthermore, it becomes quite clear that we are dealing with a stylistic tendency when we note the contrast between group and single sessions. The high (Z) figures decline quite sharply for the older speakers--for the Cobras from -30 to -04. But most importantly, we note that the effect of a following vowel is very strong, and operates in all cases except the Cobras in single style, who show -04 ~ -04, at a low level of (KZ).

We also kept track of deleted plurals in our grammatical searching process-simply noting the number of cases rather than searching for any particular frequency. The results for the following groups are:

	no. of deleted plurals
T-Birds	40
Lames	8
Cobras	36
Jets	35
Oscar Brothers	18

This appears at first glance to be a sizeable number, but it is of the same order of magnitude as the figures given for (KZ). Furthermore, we find that a good portion of the totals are due to particular individuals. Among the T-Birds, 26 of the 40 deleted plurals were the work of Robbie H. For the Oscar Brothers, 15 of the 18 cases were from one speaker, Jerry M.

Another source of plural disturbance is the fact that a particular group of words have zero plurals in NNE, parallel in one sense to sheep and deer. Thus we have the following results for the items cent and year which we studied quantitatively in grammatical searching, in terms of number of cases where there was no plural -s in plural contexts:

	no plural -s
T-Birds	4/6
Lames	3/3
Cobras	8/10
Jets	1/1

In other words, when the underlying form is actually missing, the percentage of zero plurals rises from ten percent to eighty. Furthermore, even this small amount of data suggests that all of our subjects share this small difference from SE. The process of consonant cluster simplification which affects the plural in general, however, is strongest with the central peer groups. When we contrast the central members of the Jets with the marginal and peripheral members, for example, we find plural deletion is a stylistic device employed primarily by the core members (see section 4.2 below).

Figure 3-10b shows the situation with the adults as far as the plural is concerned. In general, the level of (KZ_{pl}) is very low: only the lower working class group raised in the South shows a sizeable amount of -*s* deletion, and here almost half of the total is contributed by one individual from South Carolina. The middle-class adults, of course, show very little deviation from the SE plural pattern. Except for the Southern lower working class group, the working class adults show the same effect of style and a following vowel which we observed among the adolescent speakers.

3.3.5. *The third singular -s*, (Z_v). The data of Figure 3-10a for the third person singular -*s* contrasts quite sharply with that for the plural. There are three clear indications which lead us to the conclusion that, as opposed to the plural -*s*, there is no underlying third singular -*s* in NNE.

a. The magnitude of the indices is altogether greater than that for (Z_{mm}) or (Z_{pl}). There is no group or style for which it falls below 50 per cent, and it actually rises 100 or close to 100 for others.

b. There is no stylistic shift observable in moving from group style to single sessions.

c. Most importantly, there is no tendency whatsoever for the effect of a following vowel to lower (Z). On the contrary, the general trend is for there to be less -*s* before a following vowel than before a following consonant. This situation then deviates sharply from the pattern we have seen with the vocalization of *r* and *ɫ*, with (KD) and the other (Z) clusters. The conclusion is inevitable that we are not dealing with a phonological process at all: that there is no underlying -*s* in the dialect. This was the initial indication which we found in our first examination of the T-Birds and Cobras in CRP 3091 and reported further in "Some Sources of Reading Problems..." (Labov 1966d).

Further evidence for the unsystematic character of this -s in NNE can be drawn from the irregular pattern of distribution which we find. There are a great many examples of "hyper-Z" occurring in odd, unpredictable, and idiosyncratic positions. To begin with, we frequently find -s with other persons besides the third singular.

(15) I trusts my friend.
[14, Jets, #527]

(16) My brothers plays in it.
[11, T-Birds, #372]

This tendency to "hyper-Z" does not seem to follow any regular pattern; some individuals do it a great deal, and others hardly at all. It is naturally more characteristic of formal speech, rather than the spontaneous interaction of the group sessions, and more common among adults than children. In the Lower East Side study, we encountered one speaker from South Carolina who used an extraordinary amount of "hyper-Z"; it was almost the norm with her. Greene and Ryan, in their report on Harlem schools (1965), accurately show "hyper-Z" as a very frequent form with some children and rare in others, although they follow the usual literary tendency to make an occasional pattern absolute:

> VERNON. But those police don't really wanta break it up; they just wants their share. That cop hang out in our hall cause it's warm, but that's how he in on the numbers.
>
> REGGIE. When things gets bad, the lieutenant get wind of something; he get mad and say, "There's gonna be no more numbers." Then they starts bringin peoples in. They don't really wanta bring you in; they throws you out by nine in the morning.
>
> LEANORE. Not nine in the morning, nine at night. It's too late to just bring any more people in. The reason they want their share, those cops don't get paid too much neither. That's why they shake you down. But they don't tell that lieutenant. The lieutenant would can'em!
>
> RICHARD. My mother says you'd think colored cops'd be nicer than the white cops, but they just about the same. But we needs police. They protects you from the big kids that throw the rocks, make your eye go out.
>
> VERNON. No one persons owns the numbers. And when you win, they comes on your street and tells you.

REGGIE. They do not, they gives out winners in the tavern now.

VERNON. That's a lie! They tells it on the streets, too!

The irregularity of "hyper-Z" may also be seen in its distribution in certain lexical items. In WNS, the verb *got* seems to be unique in that it has no third singular -*s*; it is derived from an original *he has got to* *he's got to* *he got to*. In NNE, this odd characteristic of *got* seems to be reflected in the extraordinary concentration of "hyper-Z" in third singular as well as other persons:

(17) He knows what he gots to do.
[13, Jets, #602]

(18) Majority of the people that rob people' houses, they gots to be dope addicts...
[15, Jets, #599]

(19) I gets high every mornin' before I go to school.
[16, Jets, #667]

At one point, we examined the hypothesis that "hyper-Z" had a special affective or emphatic value, as seen in the common expression *I gots to*. However, examination of actual occurrences has not supported this view, and it remains to be shown that "hyper-Z" has any systematic place in NNE.

"Hyper-Z" also shows the most extraordinary distribution over non-finite forms, including of course frequent occurrences of -*s* after *got* and *get*. It is worth listing a wide variety of these to demonstrate the range of forms:

(20a) ...somebody get hurts.
[39, NYC, #802]

(20b) He can goes out.
[13, T-Birds, #375]

(20c) You don't belongs with them.
[52, Fla., #663]

(20d) He'd knows that...
[15, NYC, YH31]

(20e) I don't *know* how to gets no girls.
[13, Jets, #535]

(20f) He's *gots* to be nasty!
[13, Jets, #535]

(20g) He just wantsa gets off...
[11, T-Birds, #381]

We also find characteristic use of "hyper-Z" after invariant *be* (discussed in detail in section 3.4. below), and even after *would* and *are*:

(21a) Q. [What's a beatnik?]
A. He wear a beard and he always bes on the beach mosta de time.
[13, Venice, V79]

(21b) The guys that...bes around the park with us, there's a leader of them.
[15, NYC, YH41]

(21c) ...all our men ares each on side...
[13, T-Birds, #375]

(21d) ...and neighbors would*s* call the cops.
[50, N.C., #816]

The irregular and unsystematic character of "hyper-Z" has thus been fully documented. It is generally the case that the most systematic and regular form of language is that of basic vernacular, controlled by the frequent interaction of ones peers. The type of correction caused by exterior norms and overt social pressures is always irregular by comparison, exhibiting the following traits:

1. Irregular distribution within the relevant word class.
2. Irregular distribution to other word classes.
3. Irregular distribution among individuals.

This is the type of sporadic correction which we find among WNS speakers in New York City who correct the raised vowels of *bad*, *ask*, *dance*, etc., in an irregular pattern, and even more sporadically, the vowel of *off*, *lost*, *water*, etc., to some intermediate position, or even to the vowel of *God*.

Hypercorrection of the plural. It is useful to contrast the type of hypercorrect patterns which we obtain for the plural with those just outlined for the third singular -*s*. We find many examples of *mans* and *mens*, *womans* womens:

(21'a) It was two Mans from Uncle. [13, Chi., #470]

(21'b) But now they're big mens, you know. [25, S.C., #774]

(21'c) ...there's 2, 5 or 2 mens out.. [12, NYC, #363]

(21'd) We all was womens. [35, S.C., #729]

(21'e) We got womans here that'll do mens in, too. [56, S.C., #756]

This type of hypercorrection is especially common among adults. Among children, we also find a great many generalizations to yield childrens, sheeps, cattles, reindeers, and of course foots and feets. We also find some generalization of -s with change of mass-noun vs. count-noun category.

...stuff to make corns grow. [8, T-Birds, #586]

The noun people has an indeterminate status for many speakers, and it is natural to observe many examples of peoples in our texts. All of these examples follow a simple principle of analogy, extending the regularity of the plural in -s to cover the small number of irregular cases in English. There are comparatively few examples which could be considered irregular and sporadic, as with third singular -s. Perhaps the following example is such a case:

...and trip somebody elses up as they're
runnin' after you...
[17, Oscar Bros., #555]

On the whole, then, the hypercorrect patterns of the plural contrast sharply with those for the third singular in that they represent an extension of the regular rules of English. The third singular examples, on the other hand, seem to correspond to an instruction "In careful speech, put an in -s somewhere.", since there is no systematic basis for locating this "somewhere" in NNE. What seems on the surface to be a simple instruction--place after third singular subjects --is actually extremely difficult to incorporate into a systematic set of rules if there is no previous identification of this locus already on hand.

The associative plural an' 'em. There is a specific pluralizing form used frequently among NNE peer groups which deserves separate consideration: the associative plural heard in Larry an' 'em, Stan an' 'em, Bel an' 'em, etc. It is roughly comparable to WNS and them, and those guys, and them guys, but is used much more frequently and with a more specific meaning: 'the group that hangs out with the prominent individual named'. Thus hang out groups (see section 4.1)are named by this specific means:

KC: Is there a bunch of cats you hang out with? Russell...well, you don't hang out by yourself , do you?

RS: Uhhuh. Well, Bell an''em.

KC: Who?

RS: Labell an' 'em.

KC: Labell an' 'em. How many are there?

RS: Well, I 'on' know how many there are...

KC: Well could you give me some names and ages of some of 'em...

RS: You got the name and ages of Labell an' 'em.
[13, Jets, #603]

Certain individuals can act as head of this construction, and others cannot, depending upon their prominence. In the sections of the interviews dealing with peer-group structure, twenty-two members use this form, with a total of 56 instances in these sections alone.

The associative plural an' 'em resembles the Jamaican Creole form an dem (Bailey 1965), which seems to be more generally used as a plural form for animates and inanimates. There is an interesting possibility here of a specific NNE form developing which is related to both the Creole an dem and the WNS and them.

3.3.6. The possessive (Z_{pos}). The situation with the possessive seems quite comparable to the third singular -s although we do not have as much data as we would like. Our results show, as a whole, that NNE speakers do not use 's: there is no inflection for the attributive possessive. There is no need to quote any extensive example but the the following are typical.

(22') So then the dude--the dude old lady came around--y'a dig.
[15, Jets, #560]

(23') If I got a dollar worth of change in my pocket,...
[17, Oscar Bros., #558]

(24') Mos' people--
Ef you notice, majo'ity of the people that rob people houses they gots to be dope addic' or if they ain't, sump'ms wrong wid 'em.
[14, Jets, #599]

There is not sufficient data on (Z_{pos}) to show significant features for peer groups on Table 3-10a, and we simply sum up the situation

	Single style		Group style	
All peer groups	-K	-V	-K	-V
	23/32	—	30/52	2/4

for all of the groups concerned. The possessive is similar to (Z_V) in that well over 50 ^{o}/o of the time we find no final -s. There is not enough data for the possessive before a vowel for us to say whether or not the frequency increases or decreases. However, the figures we have for occurrences before consonants show that peer groups appear relatively uniform in their treatment of the possessive, and it is our belief that there is no underlying *-s* in the attributive possessive form. This belief is strongly reinforced by the results of memory tests (see section 3.9 below) in which NNE members find great difficulty in reproducing the *'s* of the possessive. The difficulty is greatest with *whose*:

(25') ...whoever foot I stopped on...
[13, T-Birds, #375]

(26') All he got to do is find out who book it was.
[13, T-Birds, in memorary tests]

It should be clear that there is no fundamental problem with the possessive category in NNE. The absolute possessive nominal shows *-s* quite regularly in *this book of Alvin's*, etc.[22] In fact, we find double possessives in the pronouns as a part of a very regular pattern: *mines* is parallel to *his*, *yours*, etc. Furthermore, we find that possessive pronouns are quite regular in attributive position. We have discussed above the homonymn of *they* and *their*, *you* and *your*. We also find that by similar processes it is possible to have *he* for *his*, although it is extremely rare. We have one instance in the speech of an 8-year-old:

(27') ...up to he house.
[8, T-Birds, #927]

The other possessive pronouns are *my*, *her*, *our*, and *their*; we have no record of any other forms in the data, on hand.

We also find in attributive position the associative plural *an' 'em* discussed above.

(28') ...in Larry an' 'em hallway.
[14, Jets, #527]

This last construction is equivalent to SE *in the hallway of Larry and those guys*. It does not seem possible to have a group possessive *'s* in this construction at all: **in Larry and them's hallway*. There are several other instances of related plurals in *them* which do not take possessives:

(29') Mean de names of dem? [15, NYC, YH41]

(30') I don't know none of them last names. [8, T-Birds, #927]

(31') You could tell a clinker, 'cause his eyes. His eyes are--all of them eyes are orange, or reddish. [13, Cobras, #492]

All of these illustrate the difficulty involved in the loss of *their* as an attribute possessive, and the various routes taken when a simple *they* is not available or appropriate in oblique position.

3.3.7. Adverbial (Z). Table 3-10a shows data on adverbial (Z) in single style for the various peer groups. In general, we see almost the same high level of "simplification" which was observed for (Z_v). However, the younger groups show the effect of a following vowel in preserving the cluster, and the older groups show the reverse effect. The situation is not at all clear, partly because the general class is not homogeneous: that is, it is quite possible that for some lexical items the -s is a part of the underlying forms and for others it is not. The younger speakers may assume that all forms such as besides, sometimes, always have final -s, whereas the vernacular of the older groups may identify some forms as having -s, and others as not. Further study is required of individual items, although it does not seem to be a serious problem in itself. In some WNS dialects, we observe comparable fluctuations.

3.3.8. The adult (Z) patterns. So far, we have been considering the behavior of the various peer groups and isolated adolescents. Table 3-10b shows the various (Z) patterns for the adult groups.

First, it may be observed that the middle-class adults are perfectly standard in all of these features. This situation contrasts quite sharply with that of other phonological rules studied in this chapter, where small levels of activity may be observed among the middle-class speakers: there is a complete elimination among middle-class speakers of any simplification or loss of (Z). In the case of the third singular -s and the possessive, we can say that this element has been completely restored in the speech of middle-class speakers, whatever their vernacular patterns may have been, and no phonological processes are operating to weaken the pattern.

None of the adult working-class groups show as high a (Z) level as the peer groups. Only the Southern lower working class shows high (Z_v) levels. This group is also different from the others in that they show less the effect of a following vowel in reducing simplification. As we look down the right hand side of each pair, at the __V column, we see that there is a (Z) of zero or close to zero, except for the lower Southern sub-group. When we examine the patterns for single (VZ), it is even clearer that the underlying forms are intact, for there is no simplification at all before a following vowel. All of this evidence points to the fact that the adults have been exposed to the same abstract forms as SE and have absorbed them into their systems. he processes which continue to remove these inflections are now primarily phonological, except perhaps for the lower Southern sub-group.

3.3.9. *The white Inwood (Z) patterns*. Table 3-10a also shows the results of grammatical searching for the two Inwood groups combined--pre-adolescent and adolescent. There is only one area in which any simplification of (Z) clusters appears, and that is in group style with the plural. Here we see 18 °/o simplification before consonants, which disappears entirely before vowels. There is no sign of any simplification, deletion or loss of monomorphemic clusters, third singular -*s*, possessive '*s* or adverbial '*s*. In effect, all but the phonological processes operating upon the plurals may be considered characteristic of NNE but not WNS.

3.3.10. *The reverse effect of the following vowel*. In several cases discussed above, we have seen that when NNE does not have a secure position for the underlying -*s*, that the following vowel did not act to increase the percentage of occurrences of the sibilant. That much would be expected from our conclusion that there was no underlying -*s* for a phonological rule to act on: we are dealing with a genuine case of "dialect mixture", with all the irregular and sporadic character which that term implies. However, it is not clear why we should get a reverse effect in so many cases--why a following vowel should show the -*s* *less* often.

The following hypothesis is suggested as an explanation for this effect. We note that the phonetic output of English freely re-assigns final consonants to the beginning of the next morpheme if this morpheme begins with a vowel. If the final consonant is a weakly released [t'] then it is easily identified by the listener as derived from the preceding word, and not confused with an initial [t^h]. Thus for example, it is not possible to confuse *perfect time* with *perfect I'm*, since the first case will show a strongly aspirated [t^h] in *time*. But not all English voiceless consonants are heavily aspirat~~et~~ed, and many voiced obstruents and liquids are not so clearly differentiated into final and initial allophones. For example, the utterance *I'm meeting*... can be misunderstood as *I'm eating*..., as was recently observed. A name *Frank Kehl*, pronounced in allegro style, is heard as *Frank Hale*. In these cases, the listener hears an initial [m-] or [k^h-] and may or may not interpret them as a part of the preceding word according to the semantic assessment made or according to previous familiarity with the proper names involved. It is understood, of course, that geminates are automatically simplified in natural speech.

Here we are dealing with a final -*s* which is not easily differentiated from an initial *s*-. Therefore an expression such as [hilaɪksʌpər] may be interpreted as either (a) *He like supper*... or (b) *He likes upper*... For SE listeners, there is no problem: there must be an -*s* on the end of the preceding word, and therefore (b) must be the correct interpretation. But for NNE listeners, there is no way of knowing which interpretation is correct. Let us suppose that the speaker intended to say (b) He like upper... In that case, if he had not used a final -s, there would be no possibility of confusion for the listener. But if he does use a final -s, then the listener has to decide where it goes, and without the automatic knowledge and skill of the SE speaker, with his third-singular rule, the NNE listener is very likely to be confused. This situation will not of course arise when the next word begins with a consonant, for the various sK-clusters are all easily distinguished from combinations.

Therefore the act of supplying an -s before a vowel does not lead to any additional clarity, as might be the case with (KD) clusters, but only serves to produce confusion in the listener with (VZ) clusters. This may be the explanation for the reverse effect of a following vowel when there is no basis for the preceding final in the underlying grammar.

3.4 Deletion, contraction, and inherent variability of the copula

3.4.0. Absence of the copula in NNE. It has frequently been observed that Negro speakers omit finite forms of the copula in sentences such as (22-39) on the following page. These examples show typical forms where is and are are absent before noun phrases (22-25), predicate adjectives (26-28), locatives (29-31), and before negatives (32-33). Furthermore, these finite forms of be are most often absent before the verb with progressive suffix (34-37) and before gonna (38-39), which may be regarded as one of the many reduced forms of going to (see 3.5.2).

One might indeed simply record these facts, and note that the use of the copula must be taught in school. However, the notable lack of success of schools in teaching such apparently simple matters, and their re-occurrence in the writing of high school students indicates the need for a deeper analysis. Three basic questions can be raised:

a. What is the form of the general rule of NNE which governs sentences such as (22-39)?

b. What is the relation of this rule to other rules of NNE?

c. What is the relation of this set of rules to the corresponding rules of SE?

Beyond these questions, we can ask (d) whether the form of the NNE rule changes or develops with the age of social position of the speaker (see 3.4.13).

Answers to these questions are provided by a consideration of forms (22-39) along with other related sentences, the result of grammatical searching under the principle of accountability discussed in 2.4. The evidence to be presented falls into three categories: (1) related sentences in which the forms of be are never deleted by any speaker; (2) quantitative patterns of variation in presence of absence of be in the environments of (22-39); (3) implications of the ordering of the rules required to account for the data. The logic of generative grammar will be utilized to present and analyze the first set (3.4.2,4); the techniques of quantitative analysis for the second (3.4.5); and both methods for the third (3.4.6). Our knowledge of the rules of SE must also be extended, particularly with regard to contraction, using the techniques of generative grammar to analyze the grammaticality of certain sets of SE sentences.

Some environments in which finite forms of *be* are frequently absent in NNE:

A. Before noun phrases [__NP]

(22) She the first one started us off. [35, S.C., #729]
(23) I think he a Jew. [18, Oscar B.,#570]
(24) Means he a faggot or sumpm like that. [18, Oscar B.,#570]
(25) He a eat-and-runner. [15, Jets, #572]

B. Before predicate adjectives [__PA]

(26) He fast in everything he do. [16, Jets, #560]
(27) You crazy! [35, S.C., #729]
(28) [But Calvin is a little guy!]
I know, but he wild, though! [13, T-Birds,#451]

C. Before locative phrases [__Loc]

(29) You out the game. [10, N.Y.C., #362]
(30) He in eighth. [16, Chicago, #471]
(31) We on tape. [16, Chicago, #471]

D. Before negatives [__Neg]

(32) But everybody not black. [15, Jets, #524]
(33) They not caught. [11, T-Birds, #449]

E. Before verbs with progressing -*ing* [__Ving]

(34) He just feel like he gettin' cripple up from arthritis. [48, N.C., #232]
(35) Cause when you watchin' a game, you ain't gettin' that much more fun than when you would really be playin' it. [13, Jets, #605]
(36) Boot always comin' over my house to eat, to ax for food. [10, T-Birds, #451]
(37) When you among high class people, and you 'scussin' things with 'em, common sense 'll tell you the way you use, you know, your mind. [19, S.C., #YH-2]

F. Before reduced forms of SE *going to* [__gn]

(38) He gon' try to get up. [12, T-Birds, #451]
(39) Cause we, we gon' sneak under the trainstile. [13, Cobras, #488]

3.4.1. Status of the copula in NNE grammar. The examples of missing forms of be in sentences of the type (22-39) have led several observers to the conclusion that there is no present copula or auxiliary be (Stewart 1966). This would seem to be a reasonable inference in view of the fact that a great many languages show no present copula--e.g., Hungarian, or Hebrew. The French Creole of the Caribbean shows the same pattern (40-41), and so does the English Creole of the same area (42-43). The English Creole of Jamaica shows no copula in most of the environments of (22-39), as for example before predicate adjectives (44) and locatives (45) (Bailey 1966).

(40) Mwẽ ã cwizin.
(41) Mwẽ esit.
(42) I in the kitchen.[22]
(43) I here.

(44) Im sik bad. 'She is very sick'.
(45) Jan in a hous. 'John is in the house.'

Gullah, the creole English spoken in the Sea Islands of South Carolina and Georgia, also shows the absence of finite forms of be:

(46) nɒʊ dɑt də sʌpm!
(47) ɒɪ gwɒɪn təl əm: ju rəd dəwəl!
(48) ɒɪ sɑtɪsfɒɪ wɒt gɒd dʌn fə mi.
(49) dɪ pipl nə gɒn bɑk.

--Diana Brown, Edisto
Island, South Carolina
(Turner 1949, p.263).

Furthermore, the early grammars used by children 18 to 24 months old show no copula, and there seems to be little basis for constructing one in the underlying phrase structure (Bloom 1968).

(50) That a lamb.
(51) That a bear book.
(52) It a my book.
(53) Kathy in there.
(54) Man in blocks.
(55) Tiny balls in there.

The suggestion that NNE shows no copula or auxiliary be is therefore plausible in that this is a very common pattern, particularly in languages which may have had considerable contact with and influence on NNE; in this analysis, NNE would differ from SE in a high level rule of the grammar.[23]

The question raised here should not be identified with the question as to whether the copula appears in the phrase structure of SE or NNE. There are many ways to introduce the copula into the early rules of English grammar, and it is not at all necessary that this be done by a phrase structure rule. The rule given by Chomsky in Aspects of the Theory of Syntax (1965) shows a copula in the phrase structure (56).

(56)
$$\mathrm{VP} \rightarrow \left\{ \begin{array}{l} \text{Copula + Predicate} \\ \mathrm{V} \left\{ \begin{array}{llll} \text{(NP)} & \text{(PP)} & \text{(PP)} & \text{(Manner)} \\ \text{S'} & & & \\ \text{Predicate} & & & \end{array} \right\} \end{array} \right\}$$

However, Bach's suggestion appears quite reasonable that the copula should be introduced by an early transformation such as (57) whenever it is followed by a bare predicate, since it is plainly predictable in this environment (Bach 1968).

(57)
$$T^{ob}_{cop} \qquad \begin{array}{ccccccc} X & - & Aux & - & Pred & - & Y \\ 1 & & 2 & & 3 & & 4 \end{array} \rightarrow 1 \quad 2+be \quad 3 \quad 4$$

Another possible approach is that of Rosenbaum in Grammar II; here the auxiliary *be* is introduced by a segmentalization transformation from features of the following element (58) and the copula could plainly be handled by the same device (Rosenbaum 1967).

(58)
$$\begin{array}{ccccc} X & - & [+prog]_{VB} & - & Y \\ 1 & & 2 & & 3 \end{array} \rightarrow 1 \begin{bmatrix} +prog \\ +COP \end{bmatrix} +2 \quad 3$$

Which ever method we select for treating the copula, the issue is whether NNE has such high level rules as (56), (57) or (58), or whether NNE differs from SE in not having such a rule. The evidence of the following section supports the former alternative.

3.4.2. *Grammatical constructions in which forms of be regularly appear in NNE*. In the following cases, NNE regularly shows forms which are derived from *be* in standard English.

The past tense and the negative. The preterit shows *was* and *wasn't* as in (59-61), and these same forms appear as auxiliaries with *V + ing*.

(59) I was small; I was sumpm' 'bout one years o' baby. [12, Aces, #464]

(60) She was likin' me...she was likin' George too. [18, Oscar Bro.,#556]

(61) If we wasn't playin' now, it wouldn't a happen. [13, Cobras, #493]

In the present, the negative is *ain't*, as in (62-64).

(62) It ain't no cat can't get in no coop. [15, Cobras, #490]

(63) My sons, they ain't but so big. [26, NYC, #840]

(64) They not brothers. [14, Aces, #467]

It is possible to argue that *was* is the preterit of *be* only in an historical sense, but that it is synchronically simply a marker of the past tense. Similarly, it may be said that *ain't* is merely a negative marker, with no current relation to *isn't*, *aren't*, etc., from which it is historically derived. However, it is not uncommon to find forms such as (32, 33, 64) in which the negative marker is represented by plain *not*. To continue to maintain that *ain't* has no relation to *is not*, it would be necessary to assert that *They not brothers* and *They ain't brothers* are exactly equivalent (or to discover a semantic difference of some sort between them).

Maintenance of I'm. Another form of *be* which appears regularly is the '*m* of (65-67).

(65) I'm tired, Jeannette. [48, N.C., #232]

(66) I'm not no strong drinker. [15, NYC, #YH44]

(67) I'm doin' a little bit of everything. " " "

This form occurs in the overwhelming majority of cases. Table 3-11 summarizes the information derived from grammatical searching of the records of all NNE peer groups, the working-class adults, and a number of exploratory interviews in other ghetto areas. The total number of cases of contracted '*m* is 1,091. There are only forty-three full forms, and of these thirty occur in final position where contraction is not a possible option, as discussed below. Thus there are only thirteen cases of full forms *I am* in the environments of (22-39).

The contraction of *I am* to *I'm* is thus a semi-categorical rule for NNE. The '*m* is rarely, perhaps never deleted. Only three cases of no copula or auxiliary were found after *I*; these may have been the results of the contraction and deletion of *is* which does occur very rarely after *I* although agreement of subject and verb is quite high with forms of *be*. In our data there is only one case of a lone [z] after *I*, representing the form spelled in dialect literature as *I'se*: next to the quotation, the transcriber wrote "verbally jocular":

(67') I is not going to be a dropout. [11, T-Birds, #505]

TABLE 3-11

FORMS OF BE WITH FIRST PERSON SINGULAR PRONOUN FOR NNE PEER GROUPS AND OTHERS

	STYLE	'm	'ma	be_2	am X	am#	's	Ø
T-Birds	A	60	23	2	1*			
	B	64	1	10	3*		1	1
Aces	A	7	2					
	B	21		1		2		
Cobras	A	61	13	2	1	3		
	B	73	7	12		4		
Jets	A	69	15	4	1	1		2
	B	180	11	27	4	6		2
Oscar Br.	A	90	5					
	B	25	2	8	1			
Lames	B	65	3	2	2*			
Working class adults	A	97	12			6		
	B	121	9			7		
Exploratory IVs		53	2	2		1		
		986	105	70	13	30	1	5

* Including formula: I-AM-KILLER-DILLER from game of Lodee (Skelley)

Because contraction is semi-categorical for *I am*, it might be possible to argue that for many NNE speakers, *I'm* is not related synchronically to *I am*, but that it is an "allomorph" of *I* which occurs before verbless predicates (Stewart 1966). However, it cannot be overlooked that in the thirty cases of final *am*, the speakers unhesitatingly and unerringly supplied the correct full form. There is more disagreement of person and number in such sentences than ordinarily (see 3.6 below) and *is* is used not infrequently where SE has *are*, but as noted above *I is* is quite rare. Furthermore, we find that *I am* is heard very frequently in the New York City pre-adolescent culture in the game of *lodee* or *skelley*. This complex game requires a design marked on the street which includes a central box divided into four sections labelled I, M K and D. Everyone who explains the game to us knows that this stands for *I AM KILLER-DILLER* pronounced with full forms; four of the thirteen considered in Table 3-11 are from this formula. Thus the use of the "M" to designate the underlying *am* plainly recognizes the fact that the normal form is the consonant [m] and that this is equivalent to *am*. This particular phase of the game seems to be native to Harlem.

Considerable attention has been given to the occasional occurrences of *I'm is* in NNE, which seem to reinforce the notion that the '*m* does not represent the copula for Negro speakers. Certainly the existence of such forms does indicate the difficulty of some NNE speakers in restoring stressed *I am*, which reflects the semi-categorical nature of the contraction rule after *I*. The results of our grammatical searching of the records of the NNE peer groups, and adults, provide the following instances of such a tendency:

(69) I know what I'm be doin' when I be takin' on the things. [14, Cobra, #496]

(70) ...the same color *I'm is*. [25, Fla., #296]

(71) *Was I'm* up here last week? [15, Jets, #531]

The first case probably represents a deleted schwa of the future, derived from I know what [amə] be doin'... The second and third seem to represent the type of difficulty speakers have with expansion of an habitual *I'm* to the full form.

These forms are uncommon--indeed rare as compared to the great bulk of first person *I'm* forms. However, we do have here two clear cases of supplying a redundant copula in place of the full form of *am*, compared to forty-three cases of *I am*; and compared to this smaller number the

"*I'm is*" forms take on greater significance. They do not represent the pattern of NNE, but they do indicate some of the difficulties of analysis induced by the categorical nature of the contraction rule after pronouns, especially after *I*.

Note that the lack of deleted forms is plainly motivated phonologically--there is no phonological process which removes the feature of nasality or labiality at the ends of words. Thus the two cases of zero copula after *I* may well represent the loss of *is* rather than *am*.

The negative of *I'm* is *I ain't* as in (68)

(68) [You the best sounder, Eddie!]
I ain't. He is!

Here it is not possible to say that *I ain't* is an allomorph of *I*; rather one would have to say that *ain't* is an allomorph of *not*, unrelated to *am not*. It is of course obvious why we do not have *I'm ain't*--since the '*m* is included in the derivational history of *ain't*. If the speakers of NNE had lost that sense of *ain't* = *am not*, we would begin to observe *I'm ain't*... and indeed there is nothing to prevent this from happening.

Finally, one may note that the redundant copula of *I'm is* occurs only after *I*. We do not have *He's is* or *We're is*--it is evidently a matter closely connected to the phonological peculiarities of *I am* rather than a general fact about the copula in NNE.

The case of i's, tha's and wha's. One of the most regular features of NNE is the assimilation of a final -*t* to -*s* in combinations equivalent to SE *it is*, *that is* and *what is*. We do find occasional cases of plain *it*, *that* or *what* as in *It always somebody tougher than you are*; but in the overwhelming majority of cases we have [ɪs], [ðæs], and [wʌs].

(72) I's a real light yellow color. [15, Cobras, #490]
(73) An' if i's dangerous, I won't do it. [12, T-Birds, #365]
(74) Tha's my daily routine: women. [14, Cobras, #497]
(75) Tha's all, but I ate twice. [12, Aces, #463]
(76) Wha's your name again? [13, Jets, #572]
(77) Wha's a virgin? [12, Jets, #637]

In the early stages of our grammatical searching program, we kept a separate accounting of the disposition of -*ts* clusters in *pronoun + is*, but it soon became apparent that this was unnecessary. A glance at any page showed the predominance of (KZ-2) forms was overwhelming--in most cases absolute--that is, the first element of the cluster disappears and the second remains, as far as the surface appearance is concerned. Here again, one might argue that these condensed forms have no relation to the copula and merely represent variant forms of *it*, *that* and *what*. But the distribution of [ɪs], [ðæs], and [wʌs] matches precisely the distribution of SE *it's*, *that's* and *what's*. In all of our grammatical searching, we have discovered just one case which shows an *i's* which has lost its connection with *it is*:

(78') I think i's go like that. [33, N.Y.C., #902]

The speaker here was Puerto Rican, one of our exploratory interviews with adults from Spanish language background. We can conclude then, that the number of speakers who have lost the underlying connection between *i's* and *it is* is very low indeed--even rarer than in the case of *I'm*. If native speakers sensed no connection between these forms, we would have expressions like **i's aint*.. or **i's was*..., with dummy *i's* before negatives and past tense markers. Instead we find a one-to-one matching between the privileges of occurrence of *i's*, *tha's* and *wha's* and SE *it is*, *that is* and *what is*.

In all of the preceding cases, the great preponderance of uses show forms of the copula and auxiliary *be*, and brief quantitative examinations were helpful in revealing this preponderance. In the remaining cases, we find that the finite forms of *be* are never absent, and no quantita-data is needed. The pattern of the dialect is so clear that it is possible to elicit judgments of grammaticality in these cases, and for us to assert that the starred forms are ungrammatical.

With modals, infinitives, and imperatives. It is quite clear that the form *be* always appears in infinitve forms, after modals, and in imperatives.

(78) You got to be good, Rednall! [15, Jets, #524]

(79) Each year he will be gettin' worse all the time. [48, N.C., #232]

(80) His wife is suppos' a be gettin' money for this child. [48, N.C., #232]

We do not find, nor would we be able to interpret **You got to good, Rednall* or *Each year he will gettin' worse all the time*. In the case of imperatives, it may seem that deletion is possible, since *Cool, brothers*! is conceivable. However, this should not be derived from

(81) Be cool, brothers! [15, Jets, #524]

Be good, brothers! plainly does not mean the same as *Good, brothers*! No one would suggest a form without *be* to correspond to (82):

(82) Don't be messin' with my old lady. [16, Jets, #560]

In all these cases, we find an invariant form *be* just as in standard English. It is natural to connect this *be* with the copula and auxiliary, so that an underlying form of (78') and (78") would differ from (78) only by the presence or absence of a modal *can* or quasi-modal *got to*.

(78') You good, Rednall!

(78") You can be good, Rednall!

(78) You got to be good, Rednall!

This *be* is then a form of the verb which serves as copula and auxiliary. When combined with a tense and person marker, it appears variously as *is*, *are*, *am* and *was*, as in SE; elsewhere, it appears as *be*. There is a possibility still open, however, for those who do not wish to acknowledge this relationship: that *be* here is connected with lexical, invariant *be*$_2$ of *He be good* and *It all don't be on her* (see 3.4.11 below). It would have to follow that there *are* no infinitive, modal or quasi-modal constructions that can be derived from *He good*. On the surface, this seems to be an unlikely hypothesis, but it must be remembered that *be*$_2$ has a semantic content which is closer to the non-finite than that of the usual copula *be*$_1$; another way of putting it would be that the distinction between *be*$_1$ and *be*$_2$ is neutralized in non-finite positions.

Emphasis. It can be observed that emphatic forms of _is_ and _are_ are preserved; as in (68) and

(83) Allah _is_ God. [16, Cobras, #648]

(84) He _is_ a expert. [12, T-Birds, #398]

It is of course tautologous to assert that _is_ and _are_ are never deleted under emphasis, but the existence of such forms will be important in the over-all understanding whether there is a process of copula deletion, the form of the rules, and their place in the grammar.

Yes-no questions.

(85) "Is he dead? is he dead?" "Count bullet holes in his motherfucking head." [From a toast] [16, Jets, #560]

(86) Is that a shock? or is it not? [13, Cobras, #493]

(87) Are you down? [13, Jets, #497]

(88) Aren't you goin' hit her again? [14, Cobras, #479]

(89) Are you gon' give us some pussy? [13, Jets, #632]

We also obtain yes-no questions without _is_ and _are_; the problem of the question transformation, and the base forms of questions will be considered in 3.7. But in the large number of cases where _is_ and _are_ do appear in questions, we must relate them to underlying declarative sentences with copula _be_. The examples chosen here are deliberately selected to show that these are vernacular forms: to explain these examples as "dialect mixture" or as importations from standard English would be an extremely unlikely hypothesis.

There is little data on tag questions, but as in (86), there plainly are cases which require the finite forms of _be_:

(86) Is that a shock? or is it not? [13, Cobras, #493]

Again we find that _is_ occurs in quotations from the most excited and spontaneous interaction in group sessions.

Clause-final position: ellipsis and embedded question. The most interesting set of examples, from the syntactic point of view, are those in which we find _is_ and _are_ in clause-final position, as the result of several transformational processes. In elliptical responses:

(68) [You ain't the best sounder, Eddie!] [12, Cobras,
I ain't! He is! #489]

After ellipsis in comparative constructions:

(90) He is better than the girls is, now. [35, S.C., #729]

(91) It always somebody tougher than you are. [25, Fla., #825]

In embedded questions, after WH-attraction:

(92) That's what he is: a brother. [14, Cobras, #492]

(93) I don't care what you are. [16, Jets, #580]

(94) Do you see where that person is? [15, NYC, YH35]

In all of these frequent forms, we find the finite forms of *is* and *are* quite regularly. The comparative of course, permits ellipsis of the copula in SE and NNE, but the alternatives without copula or auxiliary for elliptical responses or embedded questions simply do not exist. We find nothing resembling

(92') *That's what he: a brother.

(93') *I don't care what you.

(94') *Do you see where that person?

With sufficient ingenuity, it is possible to provide an *ad hoc* explanation for each one of the cases in this section, and claim that there is no connection between the forms found there and the sentences of (22-39).[24] However, it will be obvious to all familiar with the logic of transformational grammar that the evidence given here points to the existence of an underlying copula and auxiliary *be* which is deleted in the specific environments of (22-39). The question then remains, by what kind of rule are these finite forms of *be* deleted? Is it a transformational rule which deletes the copula, or a separate set of rules which delete *is* and *are*? Or is it a phonological rule which operates at a lower level in the grammar? We will now proceed to specify the nature of this deletion rule more precisely.

The evidence brought forward so far has followed the logic of transformational grammar: in order to understand the structure of a given set of forms, we examine forms related within the paradigm of other tenses, aspects, moods and voices--that is, the surface forms which emerge in the corresponding questions, negatives, imperatives, comparatives, elliptical responses, and so on. A large body of evidence seems to show conclusively that there is an underlying copula. The forms of *is* and *are* are absent in a narrowly restricted set of constructions which occur frequently, but in a very wide range of related constructions, these forms of the copula appear regularly. We therefore assume that a copula is originally present in the sentence structure before the transformations which produce these varied constructions, and that it is deleted from the basic declarative constructions by a later rule; it is the nature of this rule which we wish to explore.

3.4.3. *Phonological influence on the behavior of be*. It would be difficult to avoid remarking the marked relation of the behavior of *be* to the phonological processes of NNE discussed above. The forms which are invariantly present are immune to these processes due to one aspect or another of their phonological make-up. For example, among the forms of *be* we find many relevant phonetic facts.

1. *am* is reduced to -*m* but does not disappear entirely; there are no phonological processes which delete nasals, especially labials, although they often occur concurrently with the preceding vowel. Note that the labial nasal *m* is preserved in NNE in the future form *I'm a do that*; the many SE forms for reducing *I'm going to* in allegro speech do not include this one, which preserves the -*m* intact (see 3.5.2).

2. The vowel of *ain't* is tense and long, as opposed to the short reducible vowels of *is* and *are*.

3. *was* is reduced to [wz̥], but there is no general process operating to eliminate initial [w].

4. *be* has an initial consonant and a long vowel.

5. There is a tendency to weaken final, single apical consonants, which is strongest for liquids and much weaker for obstruents. The rule that deletes final *r* is categorical in the vernacular. It is no accident, therefore, that *is* appears much more frequently than *are*, but not as frequently as '*m*.

6. Emphatic stress appears to prevent the deletion of underlying *is* and *are*.

One could adduce semantic factors to account for retaining 2, 3 and 6, but for 1, 4 and 5 we see that -*m*, *is* and *be* carry no more semantic information than *are*; yet *are* is eliminated most frequently, as shown below.

There are other reasons to believe that the deletion of *is* and *are* is governed by phonological rules.

7. We note that *i's*, *tha's* and *wha's* appear regularly in place of *it*, *that* and *what*; the copula seems to be preserved here. Again there seems to be no semantic or syntactic reason for this; it is evident that phonological processes of assimilation and reduction have operated to produce [ɪs], [ðæs] and [wʌs], and that these forms differ *phonologically* from an underlying *Joe is*, or *Joe's*, in that a final voiceless fricative follows the vowel. The general phonological rules discussed above do not delete monomorphemic [s] after a vowel. The only other cases of [s] after a vowel are monomorphemic words like *hiss* and *boss*, where the final is never deleted by a phonological rule. It seems clear that the deletion of *is* takes place after the phonological processes which change *it is* to [ɪs], and that the rule which derives *He crazy* from *He is crazy* is embedded in the P-rules.

3.4.4. *The relation of contraction to deletion.* The fundamental problem which remains in analyzing the use of *be* forms in NNE is to arrive at a simple statement of the conditions under which *is* and *are* can be deleted as opposed to conditions where they cannot be deleted. The various environments of (22-39) have one characteristic in common as opposed to the environments of (40-94). One general principle holds without exception: *wherever SE can contract, NNE can delete is and are, and vice-versa; wherever SE cannot contract, NNE cannot delete is and are, and vice-versa.* This intimate relationship between contraction and deletion will be illustrated by the examples below.

The examples constructed below are the SE versions of sentences (22-39) which show that in each case of NNE deletion, SE can contract:

(22') She's the first one that started us off. [__NP]

(25') He's fast in everything he does. [__PA]

(28') You're out of the game. [__Loc]

(33') But everybody's not black. [__Neg]

(35') He just feels like he's gettin' crippled up from arthritis. [__V + ing]

(38') He's gonna try to get up. [__gonna]

On the other hand, in many cases we find that contraction is as impossible for SE as deletion for NNE.

NNE	SE
Elliptical responses:	
(95)*I ain't! He.	*I ain't. He's.
Embedded WH-questions:	
(96)*That's what he.	*That's what he's.
Embedded comparatives:	
(97)*He as good as he says he.	*He's as good as he says he's.
WH-exclamations:	
(98)*What a fool he.	*What a fool he's.

This and an unlimited number of other examples show that contraction in SE and deletion in NNE are very similar--governed by the same syntactic constraints. In order to specify the form of the deletion rule in NNE, it is necessary to specify first the standard SE rules for contraction.

The rule for contraction of the English auxiliary. To the best of our knowledge, the rules for SE contraction have never been explored in print in any detail. It will therefore be necessary to look into the conditions under which contraction can occur, and specify the form of the contraction rule, in order to understand its relation to deletion and the form and position of the deletion rule itself.

Just as SE cannot contract in final position, so NNE cannot delete. Examples (99-102) illustrate the parallel:

	SE	NNE
(99)	*He's as nice as he says he's.	*He's as nice as he says he.
(100)	*How beautiful you're!	*How beautiful you!
(101)	Are you going? *I'm.	Are you going? *I.
(102)	*Here I'm.	*Here I.

The patterns shown in the actual data are so absolute that we feel justified in placing asterisks in the NNE column to indicate that the form is impossible, even without asking for intuitive judgments of native speakers. From these examples, it would appear that the rule is simply that contraction is impossible in final position. But (103-106) show that there is more to the matter than this.

	SE	NNE
(103)	*Who's it?	*Who it?
(104)	Who's IT?	Who IT?
(105)	*What's it?	*What it?
(106)	What's it for?	What it for? Wha's it for?

We cannot say (103) with dummy it, although we can say (104) with lexical IT ('the person who is IT in a game'). We cannot say (105), with dummy it, but we can say (106), when stressed for follows. It would seem then that a stressed syllable must follow the is or are if it is to be contracted or deleted. Still, (107-109) show that the situation is more complex.

(107)	*He's now.	*He now.
(108)	*He's unfortunately.	*He unfortunately.
(109)	He's unfortunately here.	He unfortunately here.

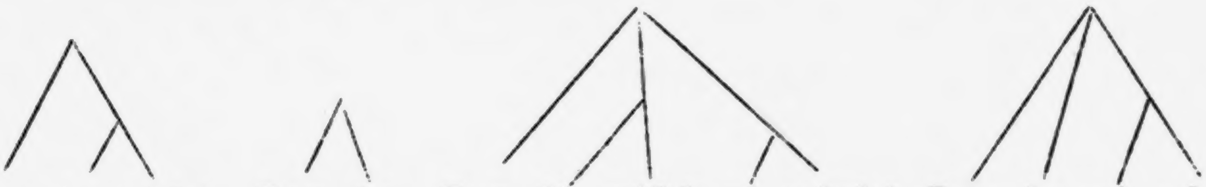
In both (107) and (108), there are stressed forms following the copula, yet we cannot delete or contract. In (109), after the addition of here, we can contract and delete. It is evident at this point that the grammatical relations between is and are and the following elements are important to the rule. Such grammatical relations figure in the stress assignment rules provided by Chomsky and Halle in Sound Patterns of English, and these allow us to state the initial conditions which govern contraction.[25] The following set of three rules operate to provide these conditions.

(110) $[V] \rightarrow [\overset{|}{V}]/[\overset{|}{V}]\ldots[\overset{'}{\_}]]_{a}$ Nuclear stress rule

(111) $V \rightarrow [-\text{stress}]/[\_\_, +W, 3\text{stress}]$ Weak word rule

(112) $V \rightarrow ə\ /[\_\_, -\text{tense}, -\text{stress}]$ Vowel reduction

The nuclear stress rule is a cyclical rule which re-assigns primary stress to the last lexical item within each phrase marker, by convention reducing the stress assignment of all other items by one unit. The phrase marker boundaries are then erased, and the rule applies to the next larger phrase. The weak word rule, provided by us operates so that weak words--words which can occur with schwa as their only vowel--are reduced to [-stress] from [3stress], whereas other syllables will be reduced to [-stress] only from [4 stress] or [5stress], and so on. The vowel reduction rule (112) is the last rule in the Chomsky-Halle series. Contraction then follows: it is the removal of a schwa which occurs initially in a word before a lone consonant. In the examples given below, the operation of these rules is illustrated.



Rule	Tom	is	wild	Tom	is	Tom	is	wild	at	night	Tom	is	at	night
	1	1	1	1	1	1	1	1		1	1	1		1
(110)		2	1	2	1		2	1			2	2		1
(110)	2	3	1			2	3	2		1				
(111)		-					-							
(112)		əz					əz							
Cont'n		z					z							

Tom's wild. Tom's wild at night.

In Tom is wild, the nuclear stress rule operates twice, reducing is to [3stress]; then the weak word rule makes this [-stress], vowel reduction applies, and contraction, yielding Tom's wild. In the elliptical form Tom is, we have only one cycle with full stress on is (or if emphatic stress is placed on Tom, with [2 stress] on is). No contraction is possible. In Tom is wild at night there are again two cycles, and the rules yield Tom's wild at night. But after ellipsis of wild, as in Bill is wild during the day, and Tom is at night, the copula is is not in construction with at night, and there is only one cycle for the nuclear stress rule. Therefore contraction does not apply.

The form of the contraction rule, therefore, will show that it represents the removal of an initial schwa before a lone consonant as in am, is, are; have, has and had will be included after a very general rule removes the initial h-; will is included, apparently with a lexical alternate without the initial w-, since there is no general rule to delete this consonant. But unstressed as cannot be contracted, even though it has the requisite phonological form [əz]. We know this because voicing assimilation, which occurs automatically after contraction, does not apply to as in like as not or hot as can be: no matter how ephemeral the schwa seems to be, we do not say [laɪksnɑt] or [hɑtskənbi]. Nor are his, him or her contracted, although the rule which removes the initial h- applies to them as well as to has, had, have.

It appears from these examples that contractability may be a lexical property of these verbs or auxiliaries: some variation may be noted in the verb *have*, which is contracted in British English, as in *They'd a great deal of money*, but not in American English. Despite this idiosyncrasy of *have*, we can find a general feature of the context which determines contractability, and shows why *as*, *him*, *his*, *her* do not contract, while both auxiliaries and copula generally do. Contraction requires the presence of the type or tense marker. The critical case is found in *They may have*. This can be written as *They may've*, but the apostrophe only indicates the deletion of the *h*-. Contraction has not applied, as we can tell from the fact that *They may've* does not rhyme with *knave*. When contraction does operate to remove the schwa, we obtain a single syllable: *They've* does rhyme with *knave*. Thus contraction occurs only when the tense or type marker is incorporated in the verb or auxiliary, and the form of the contraction rule has the general shape of (113).

(113) $$\text{ə} \rightarrow (\emptyset) / \ldots \#\# \left[\frac{\quad}{+T}\right] C_{\circ}^{1} \#\# \ldots$$

The dots imply that there are further constraints upon contraction which will be discussed below. We have developed the contraction rule as far as we can within the framework of categorical, invariant rules, There are further problems, and further constraints upon contraction which can only be handled with an enlarged conception of 'rule of grammar'.

Relations of order between contraction and deletion. One such further problem concerns the relations between the contraction rule, as generally sketched above, and the deletion rule of NNE. There are four possible relations of order between contraction and deletion:

Case 1	*Case 2*	*Case 3*	*Case 4*
1. C 2. D	1. D 2. C	1. $\begin{matrix}C\\D\end{matrix}$	1. C(D)
$\text{ə}z \rightarrow z/..$ $z \rightarrow \emptyset/..$	$\text{ə}z \rightarrow \emptyset/..$ $\text{ə}z \rightarrow z/..$	$\text{ə}z \rightarrow \begin{Bmatrix}z\\ \emptyset\end{Bmatrix}/..$	$\text{ə}z \rightarrow z \rightarrow \emptyset/..$

Case 1 is that contraction occurs first, deletion second. Case 2 is the reverse: deletion first, contraction second. It is apparent from the forms suggested that no particular relation between the two rules is implied by this order; for many reasons, Case 2 will appear the least likely.[26] Case 3 shows deletion and contraction as simultaneous alternates of the same rule, with only one set of environmental constraints. Case 4 has deletion as an extension of contraction--contraction gone wild, as it were--again with only one set of environmental conditions. Our task is now to discriminate among these four possibilities of order, and to specify in detail the form of the deletion rule.

3.4.5. Inherent variability of deletion. The discussion so far has considered the absence of the copula in the sentences of (22-39) as a simple fact about NNE, and this is the framework of many discussions committed to the description of NNE as an invariant, homogeneous system. However, an examination of any body of speech shows that the deletion of the copula is a variable rule. This is true for speakers of any age--for careful, casual or intimate conversation, or for spontaneous interaction. Furthermore, this variation is so deeply embedded in the fabric of speech that utterances such as the following are not uncommon:

(114) Make believe this is a team and this a team. [12, T-Birds, #365]

(115) This is a line, and this a line. [12, T-Birds, #365]

Given this variation, one might think that is represents the form characteristic of careful speech, and that the full forms of the copula decrease in frequency as one approaches spontaneous interaction. Nothing could be farther from the case in as far as pre-adolescents and adolescents Negro boys are concerned. As we shall see, the frequency of full forms actually increases in many cases when we move from single interviews to the excited group sessions in which the vernacular is found in its purest form.

Since we are interested in the relationship of deletion to contraction, we will present all figures on the copula as a triplet: percentages or absolute figures on (a) full forms, (b) contracted forms, and (c) deleted (zero) forms. In all of this discussion, we will be considering only those environments where is can be deleted freely: that is, the declarative sentences of (22-39). The total population of forms to be considered is defined as follows:

> is always occurs in SE and occurs variably in NNE after a third singular subject and before a predicate or progressive.

These environments also satisfy the general phonological condition which may be stated as follows:

> is may be contracted in SE and contracted or deleted in NNE whenever it occurs in SE before a stressed lexical item in construction with it under a node lower than sentence level.

In Table 3-12, the basic data is presented for four NNE peer groups, a random sample of 17 working-class adults, and two white peer groups (combined). These records include face-to-face interviews with 63 adolescents and pre-adolescents and 45 of these boys in group sessions involving spontaneous interaction. For the 17 adults, the closest equivalent of group style is the casual speech elicited by techniques described in Chapter 2. Altogether, we are dealing with 1,585 forms in careful speech, and single interviews, and 1,332 in group sessions--a total of 2,917. These large numbers are hardly necessary to establish the over-all fact of variation, but we will take advantage of them to explore the detailed conditions which govern the deletion of _is_.

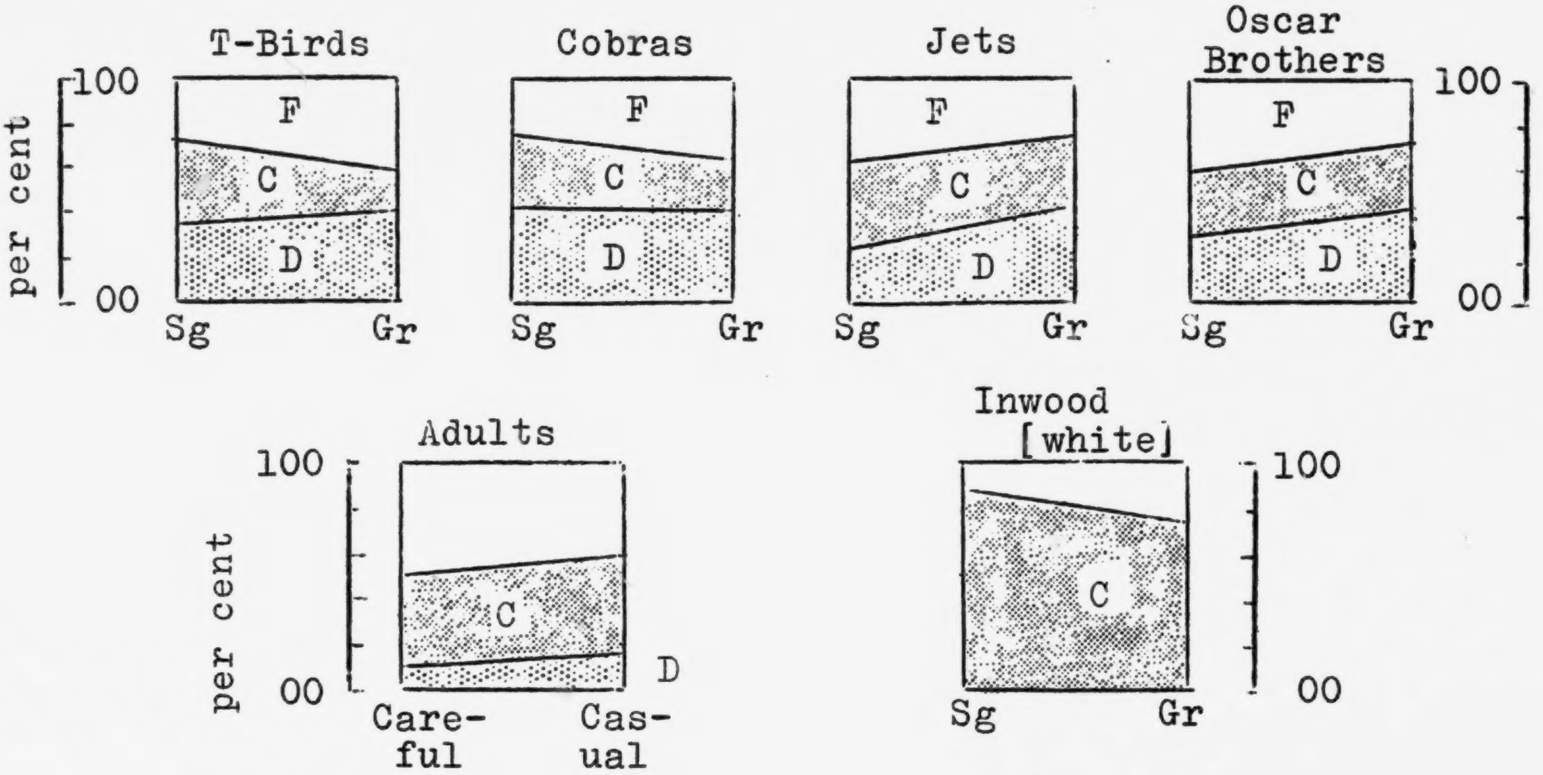
The percentages given below like many of the figures discussed in this report, are derived by totalling all occurrences of the variable within the group, not by averaging percentages for each individual. Although this one grammatical element, _is_, is relatively frequent, there are many subcategories with very small numbers for individuals. Each individual, however, does show the same basic relations as those presented for the group: the situation is quite parallel to the regularity of the (KD) variable discussed in 3.2.

The speakers studied in these sections do not include isolated individuals who are not full members of peer groups. Since we are interested in describing the grammars of NNE, we would expect that those who are not participating in the culture will not show the same relation to NNE as others, and in fact show more influence of NNE and WNS. For a discussion of the grammars of these individuals, see 4.2.

Full, contracted and deleted forms are all characteristic of NNE. The contracted (undeleted) form is least typical of NNE, and most characteristic of WNS and SE. On the analogy of the SE and WNS feeling that contracted forms are "natural" and that full forms are "careful", one might be tempted to argue that the full forms are importations from SE in"careful" style. However, as we move from single, face-to-face interviews to spontaneous group sessions, we find that the percentage of full forms generally increases. The feature which is correlated with style shift from single to group sessions is the ratio of deleted to originally contracted forms--that is, D/D+C. In other words, NNE speakers do not necessarily contract more in excited interaction, but they delete more of the forms which have been contracted. However, these stylistic shifts are minor effects among the pre-adolescent and adolescent peer groups, and only begin to assume importance with the older adolescents and adults.[27]

The single, most important constraint on deletion in NNE and upon contraction in SE and NNE is one of the least

Figure 3-7. TABLE 3-12.Full forms, contraction and deletion of is in single (careful) and group (casual) styles for six Harlem groups



	T-Birds	Cobras	Jets	Oscar Bros.	Adults	Inwood
Single style						
Full forms	28	24	37	40	48	12
Contracted	36	32	36	29	41	88
Deleted	36	44	27	31	11	0
Total	100	100	100	100	100	100
No. subjects	13	11	28	3	17	8
No. forms	327	230	500	114	318	96
Group style						
Full forms	41	36	24	28	40	25
Contracted	18	22	31	28	43	75
Deleted	41	42	45	44	17	0
	100	100	100	100	100	100
No. subjects	7	12	15	4	15	7
No. forms	349	116	213	191	270	193
D/D+C: single	50	58	43	52	21	
group	70	64	57	61	28	

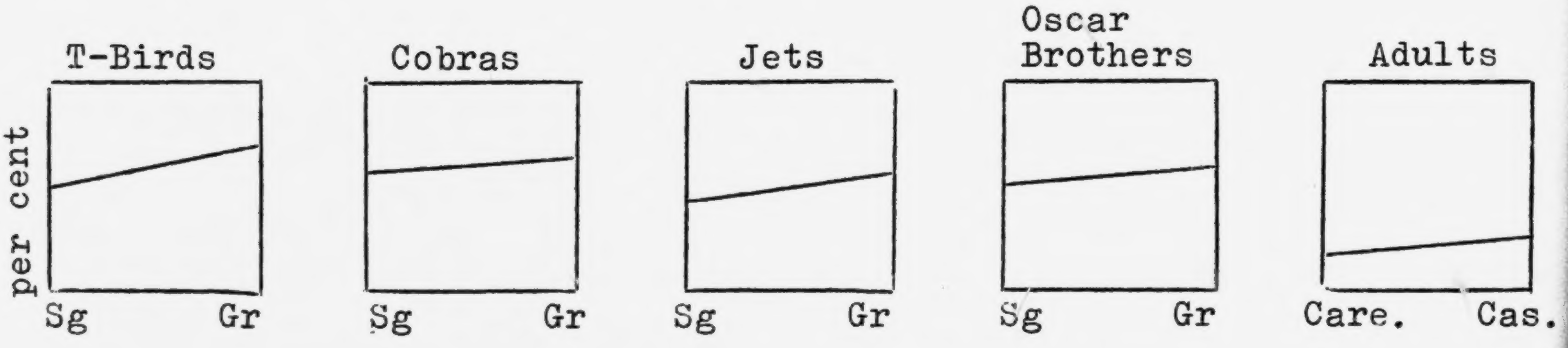


Figure 2. Ratios of deleted forms to deleted and contracted forms in single and group styles for five Negro groups

expected--whether or not the subject is a pronoun or some other noun phrase. Table 3-12a and Figure 3-7a again show percentages of full forms [F], contracted forms [C], and deleted forms [D] for six groups that have been studied closely: the pre-adolescent Thunderbirds, the adolescent Cobras, Jets, and (somewhat older) Oscar Brothers; a sample of one quarter of the working-class adults in the Cobra and Jet areas from the larger random sample of 100 adults; and the combined records of two white working-class groups--pre-adolescent and adolescent--from the Inwood neighborhood of upper Manhattan.

On the left of each figure in Fig. 3-7a is the percentage of full, contracted and deleted forms after noun phrases: on the right, after pronouns. In every case, the percentages of deleted and contracted forms are greater when a pronoun precedes. The upper line of figures show the pattern for single interviews; the bottom for group interaction.[28] Though there is a general increase in the ratio of deletion to contraction, the basic pattern is the same in both styles, for all groups.

In these diagrams, deletion is shown as occurring after contraction (Case 1); that is, the total percentage of contracted forms includes those forms which were afterwards deleted. The pattern for contraction shown here is similar for the NNE groups and for the WNS Inwood groups, who do not delete. Contraction and deletion thus respond to the same syntactic constraint. The fact that this pattern repeats regularly in six different groups, in each style, indicates how pervasive and regular such variable constraints are. We are not dealing here with effects which are so erratic or marginal that statistical tests are required to determine whether or not they might have been produced by chance.

The relationship between contraction and deletion can be explored more deeply by considering the effect of the following grammatical category. Again, we find that both rules respond to the same set of syntactic constraints. Table 3-13 and Figure 3-8 show this pattern for the Thunderbirds and the Jets, for single and group styles combined. The relationships shown here [29] are essentially the same for the other groups. The least deletion and contraction take place before a following noun phrase; more occurs before predicate adjectives and locatives; both rules apply with even greater frequency before a following verb with the progressive -ing; and with the highest frequency before the future form gonna. Here contraction is again shown as taking place on the population of full forms, but the population upon which the deletion rule operates is limited to the pool of forms already contracted.

Figure 3-7a. % of full, contracted and deleted forms of *is* with pronoun subject vs. other noun phrase subject for six Harlem groups in single and group (casual) style

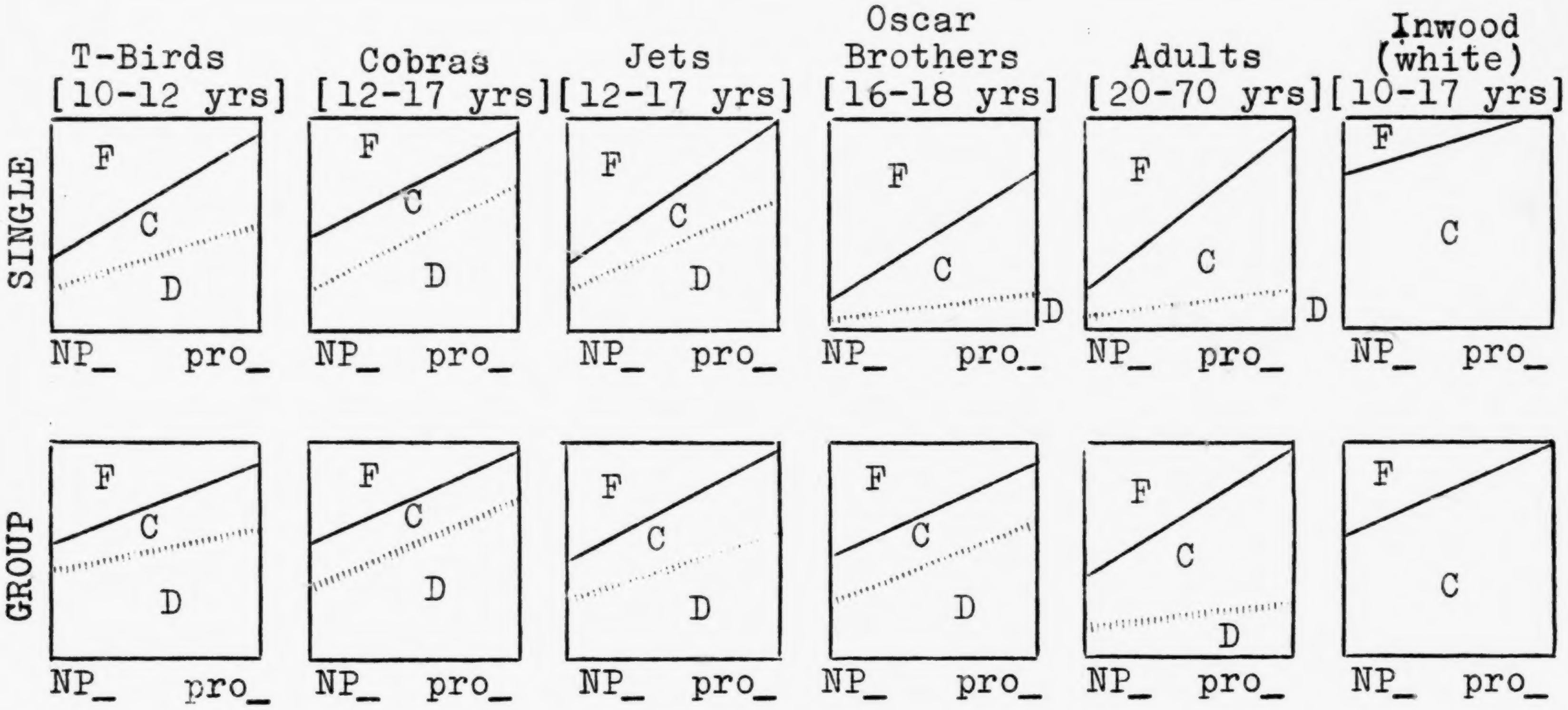


TABLE 3-12a

PER CENT OF FULL, CONTRACTED AND DELETED FORMS OF *IS* WITH PRONOUN SUBJECT VS. OTHER NOUN PHRASE SUBJECT

	T-Birds		Cobras		Jets		Oscar Bros.		Adults		Inwood	
	NP_	pro_	NP_	pro_	NP_	pro_	NP_	pro_	NP_	pro_	NP_	pro_
SINGLE STYLE												
Full	63	05	56	04	67	00	85	25	75	04	26	00
Cntrd	25	44	26	29	15	39	11	60	17	80	74	100
Dltd	12	51	18	67	18	61	04	15	08	16		
	100	100	100	100	100	100	100	100	100	100	100	100
N:												
Forms	124	212	35	106	145	189	45	47	187	118	54	61
Subjs.	13		9		15		3		17		8	
GROUP STYLE												
Full	44	07	45	00	54	00	51	04	61	01	41	01
Cntrd	15	33	19	23	19	42	23	33	26	72	59	99
Dltd	42	60	36	77	27	58	26	64	14	27		
	101	100	100	100	100	100	100	101	101	100	100	100
N:												
Forms	53	43	85	30	113	75	73	80	170	112	110	81
Subjs.	5		9		11		4		15		7	

Figure 3-8. Per cent of full, contracted and deleted forms of is according to grammatical category of complement

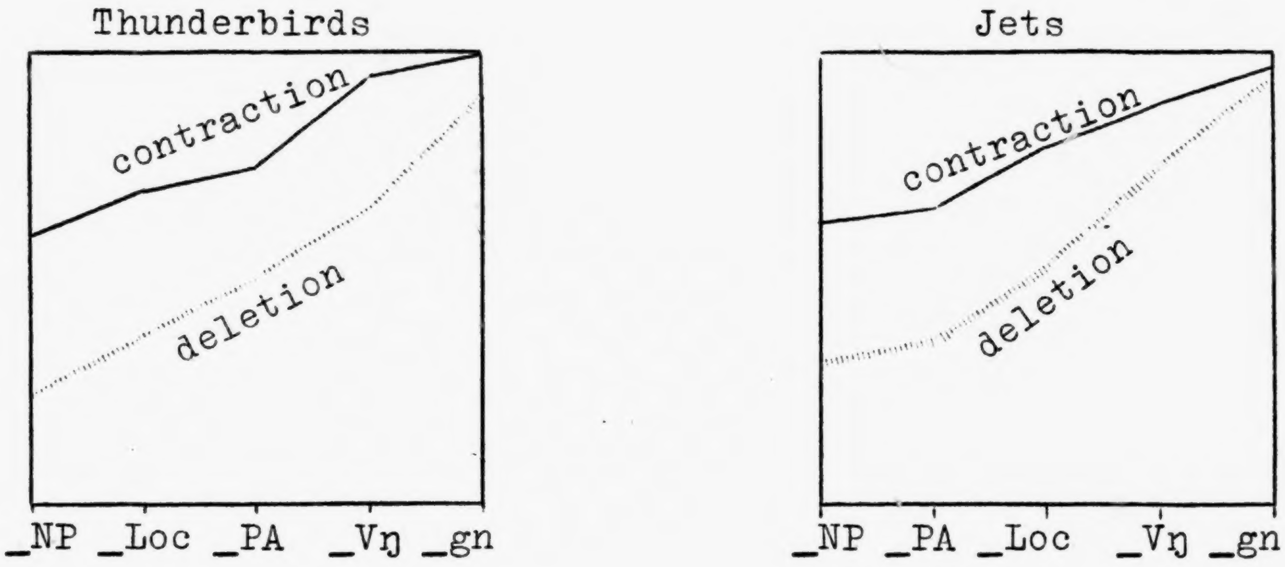


TABLE 3-13

PER CENT OF FULL, CONTRACTED AND DELETED FORMS OF IS ACCORDING TO GRAMMATICAL CATEGORY OF COMPLEMENT FOR TWO GROUPS IN ALL NNE STYLES

	_NP	_PA	_Loc	_V+ing	_gonna	
THUNDERBIRDS						(13 subjs.)
Full	40	25	30	04	00	
Contracted	37	27	34	30	12	
Deleted	23	48	36	66	88	
	100	100	100	100	100	
No. forms	210	67	50	46	40	
JETS						(29 subjs.)
Full	37	34	21	07	03	
Contracted	31	30	27	19	03	
Deleted	32	36	52	74	93	
	100	100	100	100	99	
No. forms	373	209	70	91	58	

Figure 3-8' below shows the consequences of treating contraction and deletion as independent processes. Here the percentage of contraction for the Jets is shown in terms of the actual numbers of contracted forms recorded: the result is a minor tendency which responds in just the opposite way to the syntactic constraints. Furthermore, there is no connection at all between contraction in NNE and contraction in WNS: Figure 3-9on the right shows the contraction pattern of the Inwood group, quite similar to the "cumulative" contraction pattern of Figure 3-8 (indicated on Figure 3-8' with a dotted line).If, then, we should insist on regarding contraction and deletion as completely unrelated, we would find that the syntactic constraints which operate upon them have very different effects, and that contraction for NNE has nothing to do with contraction for WNS. This is a very implausible result, and we can proceed upon the assumption that the cumulative diagram of Figure 3-8 represents the actual situation.

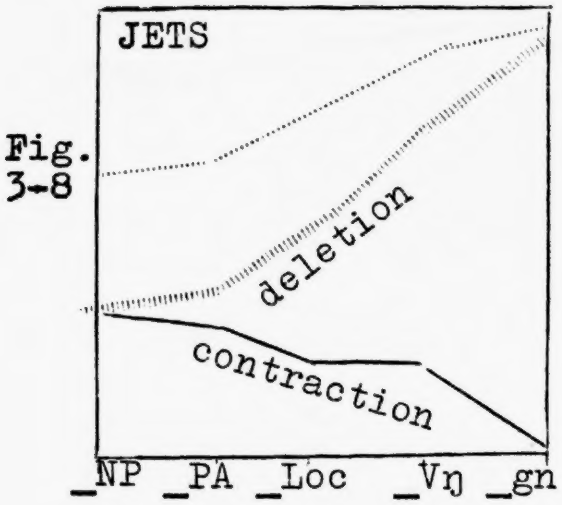


Fig. 3-8'. Contraction and deletion independent

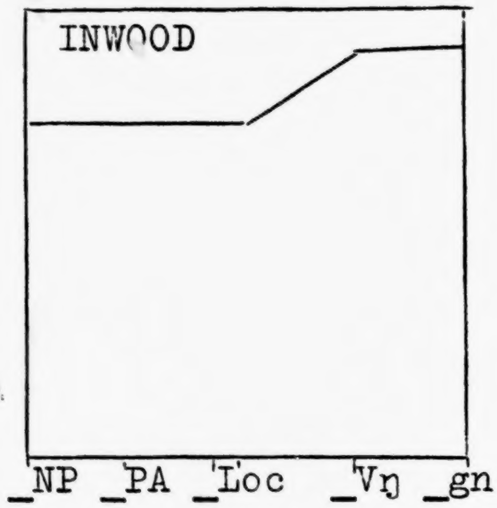


Fig. 3-9. Contraction for the Inwood groups

Given these quantitative relations, we can now return to the problem of the particular form of ordering which holds between the contraction and deletion rules. The four cases of possible ordering presented above can now be simplified. Case 2, with deletion first and contraction second, would not fit any of the quantitative results shown above, for there is no reason for the contraction of some undeleted [əz] to be dependent upon the deletion of some other [əz]: that is, it would be quite unreasonable to insist that contraction operate upon a pool of already deleted forms. The other three cases can be represented by the abstract quantitative models of Figures 3-10a-c on the next page.

Case 3

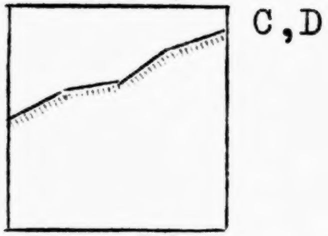


Fig. 10-a

$$\text{əz} \rightarrow \begin{matrix} z \\ \emptyset \end{matrix} / ..$$

Case 4

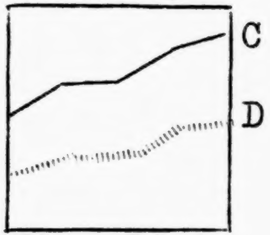


Fig. 10-b

$$\text{əz} \rightarrow z \rightarrow \emptyset / ..$$

Case 1

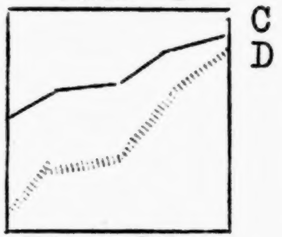


Fig. 10-c

1. $\text{əz} \rightarrow z/..$
2. $z \rightarrow \emptyset/..$

The application of the variable contraction and deletion rules is logically governed by two factors: first, an input variable which sets the overall frequency with which the rule is selected. Secondly, there are variable constraints in the immediate environment which differentiate the frequencies with which the rule applies according to various syntactic and phonological features of the sentence. Figures 3-10a-c represent the quantitative results of various combinations of these factors. For Case 3, with contraction and deletion as alternative right-hand members of a single rule, we have

$$\text{əz} \longrightarrow \left\{ \begin{matrix} z \\ \emptyset \end{matrix} \right\} / \; . \; .$$

In this expression, the rule is selected only once, and there is therefore only one variable input and one set of variable constraints. The spectrum of frequencies with which the contraction and deletion rules apply should therefore be the same, as shown in Figure 3-10a. If, on the other hand, deletion is thought of as an extension of contraction, as in Case 4

$$\text{əz} \longrightarrow z \longrightarrow \emptyset \; / \; . \; .$$

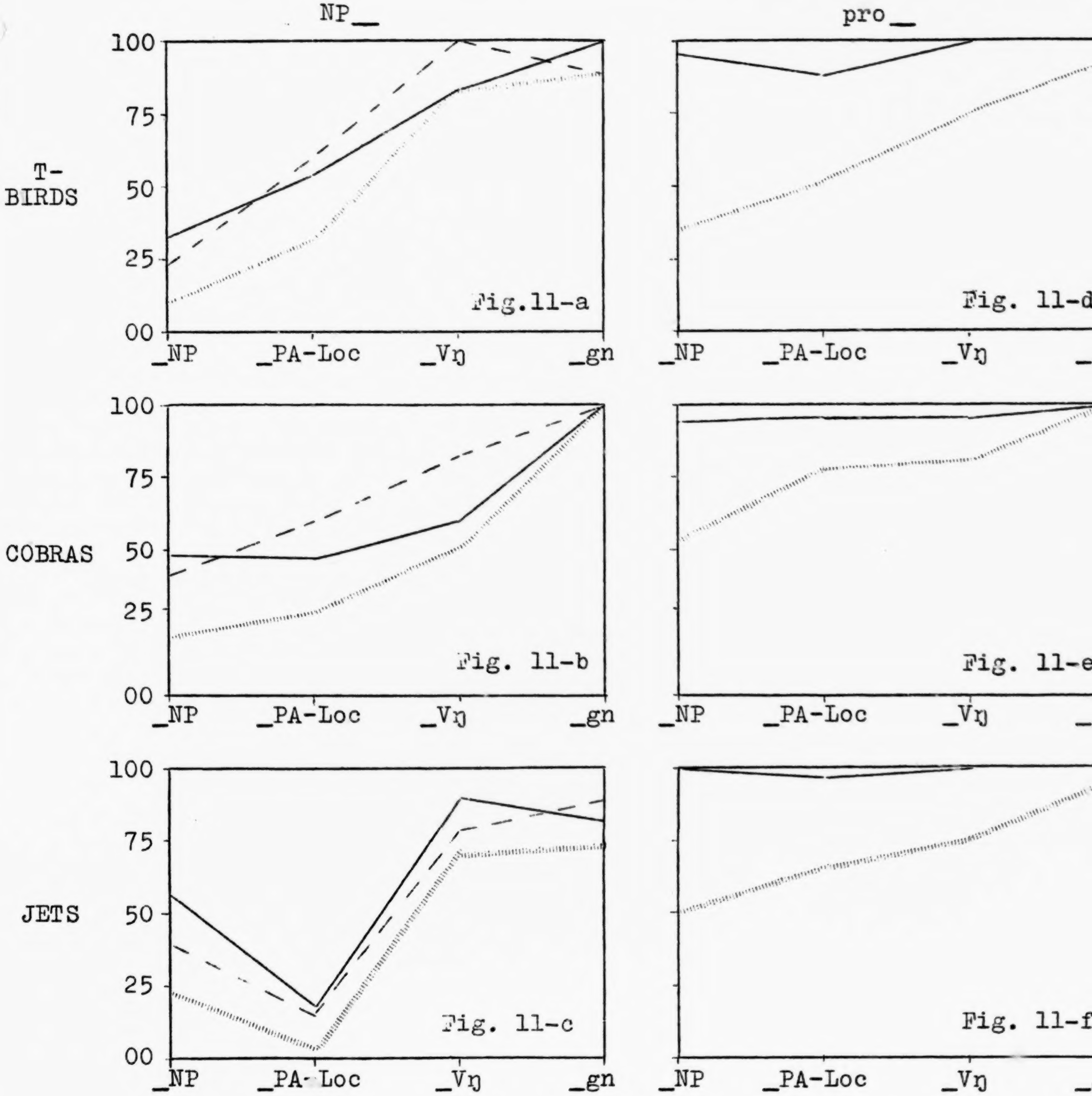
we might have two selections and two variable inputs, but on one set of variable constraints. Thus deletion would be a fixed percentage of contraction in all environments--say 50^{0}/o, as suggested by Figure 3-10b. The third possibility is that we have two selections (with variable inputs), and two sets of variable constraints. This is in effect equivalent to Case 1, with the rule for contraction applying first and the rule for deletion applying second. Here the quantitative pattern would be that of Figure 3-10c, where the variable constraints apply twice. This pattern shows more extreme or exaggerated constraints upon deletion than upon contraction; it is in fact the actual pattern which appears in the empirical data of Figure 3-8 for both the Thunderbirds and Jets, and one which is repeated for the other peer groups as well (see Figure 3-11 below).[30] We can therefore conclude from this quantitative evidence that contraction and deletion are separate, though similar, rules which apply in that order.

Independence of the preceding and following environments. The grammatical status of the preceding and following elements are only two of the many constraints upon the contraction and deletion rule. We have not yet considered here the effects of the phonological environments. However, before proceding further it is necessary to investigate the relative independence of these two sets of environments. It is possible that one is conditioned by the other--that the effect of a following noun phrase, for example, is entirely different when a pronoun precedes than when another noun phrase precedes. Or going even further, one of these effects could be nothing but the result of unequal distribution of forms in the other environment. For example, a following verb phrase may favor contraction and deletion simply because pronouns occur more frequently before predicates with Verb + ing than they do before predicates with NP.

Figure 3-11 resolves these questions by displaying the two variable conditions independently. On the left, 3-11a-c show the effect of the following grammatical category for all sentences with subject noun phrases; on the right, 3-11d-f show the data for sentences with subject pronouns. Because the total number of forms is considerably reduced for each group (even when single and group styles are combined), the following predicate adjectives and locatives are given together. Still, some of the cells are too small to be reliable, as the table of N at the bottom shows: for the T-Birds, for example, there are only six cases of a following verb after a noun phrase subject, and only eight cases of following gonna, which may be responsible for the irregularity of the pattern at this point.

Figure 3-11 demonstrates that neither of the environmental constraints--preceding or following--are dependent upon the other, although there is some degree of interaction. There is some degree of irregularity in the patterns with preceding noun phrase: for the Jets, for example, we see that the order of effects of following locative-predicate adjectives vs. following noun phrases is reversed in Figure 3-11c. We do not know as yet whether this reversal is constant or reproducible; the data presented here does not exhaust all of the material which is available for the Jets and Cobras, and further analysis will answer such questions.

Figure 11. Percentages of full, contracted and deleted forms of is according to preceding and following environments



—— °/o contracted forms

········ °/o deleted forms

– – – °/o $\frac{\text{deleted}}{\text{deleted + contracted}}$

		No. forms			
Fig.	5-a	88	47	6	8
	5-b	71	58	10	13
	5-c	99	61	21	11
	5-d	89	74	35	32
	5-e	49	65	20	31
	5-f	98	88	38	22

Figure 3-11 does show remarkable regularity in the patterns displayed by the three groups, especially in the case of a preceding pronoun. The effect of a preceding pronoun upon contraction is almost a categorical one for all three groups--that is, the contraction rule goes almost to completion--whereas the deletion rule operates variably and regularly across a wide range of frequencies.

Most importantly, all six sections of Figure 3-11 conform to the model of Figure 3-10c--showing that contraction and deletion are governed by similar but slightly different constraints. Contraction and deletion follow the same pattern even when there is a re-ordering in the constraints, as in the NP ~ PA-Loc situation for the Jets in 3-11c. With this parallelism, we observe that contraction and deletion have distinct variable inputs and distinct variable constraints which re-apply to deletion after they have applied to contraction. Thus Case 1, in which a contraction rule is followed by a deletion rule, receives ample confirmation. In each case, deletion diverges from contraction on the left and converges on the right. If it is assumed that the deletion rule operates upon the pool of already contracted forms, then the frequency of deletion D/D+C (indicated by a dashed line in Figures 3-11a-c) regularly rises from left to right (see Table 3-14 below). In Figures 3-11d-f it would seem that contraction is virtually independent of the following environment--only traces of variability before noun phrases and predicate adjectives remain. This may be considered the normal result of a variable constraint which has moved to a higher level, producing the semi-categorical pattern shown here.

The effect of a preceding vowel on contraction and deletion. There are a number of phonological constraints upon the operation of contraction and deletion, but the most important, from the standpoint of magnitude and linguistic significance, is whether or not the preceding element ends with a consonant or a vowel. Most subject pronouns end with stressed vowels[31], but other noun phrases can be subclassified in many ways according to their final segments. The most useful sub-categories of the environments for the contraction and deletion of *is*, are as follows:

(a) -S__ After noun phrases ending in sibilants.

(b) -K°__ After noun phrases ending in non-sibilant voiceless consonants.

(c) -K^{v}__ After noun phrases ending in non-sibilant voiced consonants.

(d) -V__ After noun phrases ending in vowels.

It is no accident that the first three of these categories are the same as those used to describe forms of the English /Z/ morpheme. But whereas the usual rules can treat categories (c) and (d) as one (the "elsewhere" or "other-voiced segment" category), the distinction between (c) and (d) will be critical in the analysis of contraction and deletion.

Table 3-14 shows the percentages of full, contracted and deleted forms for all six groups studied in section 3.4.5. according to the phonetic form of the preceding element. Examining the percentages of full forms, we can immediately say that

(1) In all cases, there are fewest full forms after pronouns; contraction is, therefore, almost categorical after pronouns, as observed in section 3.4.5. above.

(2) In all cases, there are fewer full forms after noun phrases ending in vowels than after those ending in consonants, but more than after pronouns. In other words, the fact that pronouns end in vowels accounts for some, but by no means all, of their effects upon contraction.

(3) In all cases but one[32],there is a small but distinct tendency for there to be more full forms after voiceless consonants than voiced.

(4) There are almost no contracted forms after sibilants, although a few definitely can be observed, contrary to the usual conception. But quite a few forms of is have apparently undergone both contraction and deletion: if we consider that forms such as The fish is... follow the same rules as the rest of the other NNE sentences, then it appears that deletion is practically categorical after sibilants.

Since noun phrases are relatively sparse as compared to subject pronouns, the numbers for all of these subcategories are not large enough for us to study the operation of deletion within them. Table 3-15 therefore compares the operations of contraction and deletion by combining -K°__ and -K^{v}__ into a single category -K__.

The contraction rule is seen as having operated upon full forms to produce the contracted and deleted forms; and deletion as then operating upon the resulting pool of contracted forms.

TABLE 3-14

PERCENTAGES OF FULL, CONTRACTED, AND DELETED FORMS ACCORDING TO PHONETIC FORM OF PRECEDING ELEMENT FOR SIX GROUPS IN SINGLE AND GROUP STYLES COMBINED

	$-K^{o}$__	$-K^{v}$__	-S__	-V__	pro__
Thunderbirds					
Full	83	70	62	43	05
Contracted	05	28	00	30	42
Deleted	12	02	38	27	53
	100	100	100	100	100
N:	24	92	21	79	255
Cobras					
Full	54	58	67	10	03
Contracted	08	09	06	53	28
Deleted	38	33	27	37	69
	100	100	100	100	100
N:	13	33	18	32	136
Jets					
Full	89	58	80	42	00
Contracted	00	14	00	45	39
Deleted	11	28	20	13	61
	100	100	100	100	100
N:	28	65	29	69	269
Oscar Brothers					
Full	93	71	68	40	04
Contracted	00	21	12	40	54
Deleted	07	08	20	20	42
	100	100	100	100	100
N:	15	14	41	37	95
Working-class adults					
Full	75	69	88	45	39
Contracted	08	21	03	45	47
Deleted	16	10	09	10	14
	99	100	100	100	100
N:	48	100	75	83	200
Inwood groups					
Full	42	30	97	13	00
Contracted	58	70	03	87	100
Deleted	00	00	00	00	00
	100	100	100	100	100
N:	12	46	34	65	61

TABLE 3-15

FREQUENCY OF OPERATION OF DELETION AND CONTRACTION RULES WITH PRECEDING CONSONANT OR VOWEL FOR SIX NNE GROUPS IN SINGLE AND GROUP STYLES COMBINED

	φ_C $\frac{C+D}{F+D+C}$	N	φ_D $\frac{D}{C+D}$	N
Thunderbirds				
-K__	.28	116	.16	32
-V__	.57	79	.47	45
pro__	.95	255	.56	241
Cobras				
-K__	.41	46	.80	20
-V__	.90	32	.41	29
pro__	.97	136	.71	132
Jets				
-K__	.32	93	.70	30
-V__	.58	69	.22	40
pro__	1.00	269	.61	269
Oscar Brothers				
-K__	.17	29	(.40)	5
-V__	.59	37	.33	22
pro__	.96	95	.44	91
Working-class adults				
-K__	.30	148	.38	59
-V__	.55	83	.18	46
pro__	.61	200	.77	99
Inwood groups				
-K__	.67	58	.00	39
-V__	.87	65	.00	60
pro__	.99	142	.00	141

(116) $C = \frac{C+D}{F+C+D}$; $D = \frac{D}{C+D}$

For the Cobras, Jets, Oscar Brothers and adults, it appears that a preceding vowel favors contraction, while exactly the opposite situation prevails with deletion: the rule applies more frequently when a consonant precedes. Figure 3-15 shows the striking character of this reversal, and runs counter to the parallelism of contraction and deletion which has prevailed up to this point. The Inwood group shows no deletion, but we observe that contraction is also favored by a preceding vowel in their case. Only the youngest group, the Thunderbirds, does not show this effect: for them, a preceding vowel favors both contraction and deletion. As noted at several points in this discussion, this absence of phonological conditioning in the younger group is characteristic of the general tendency for rules to develop in this direction with age.

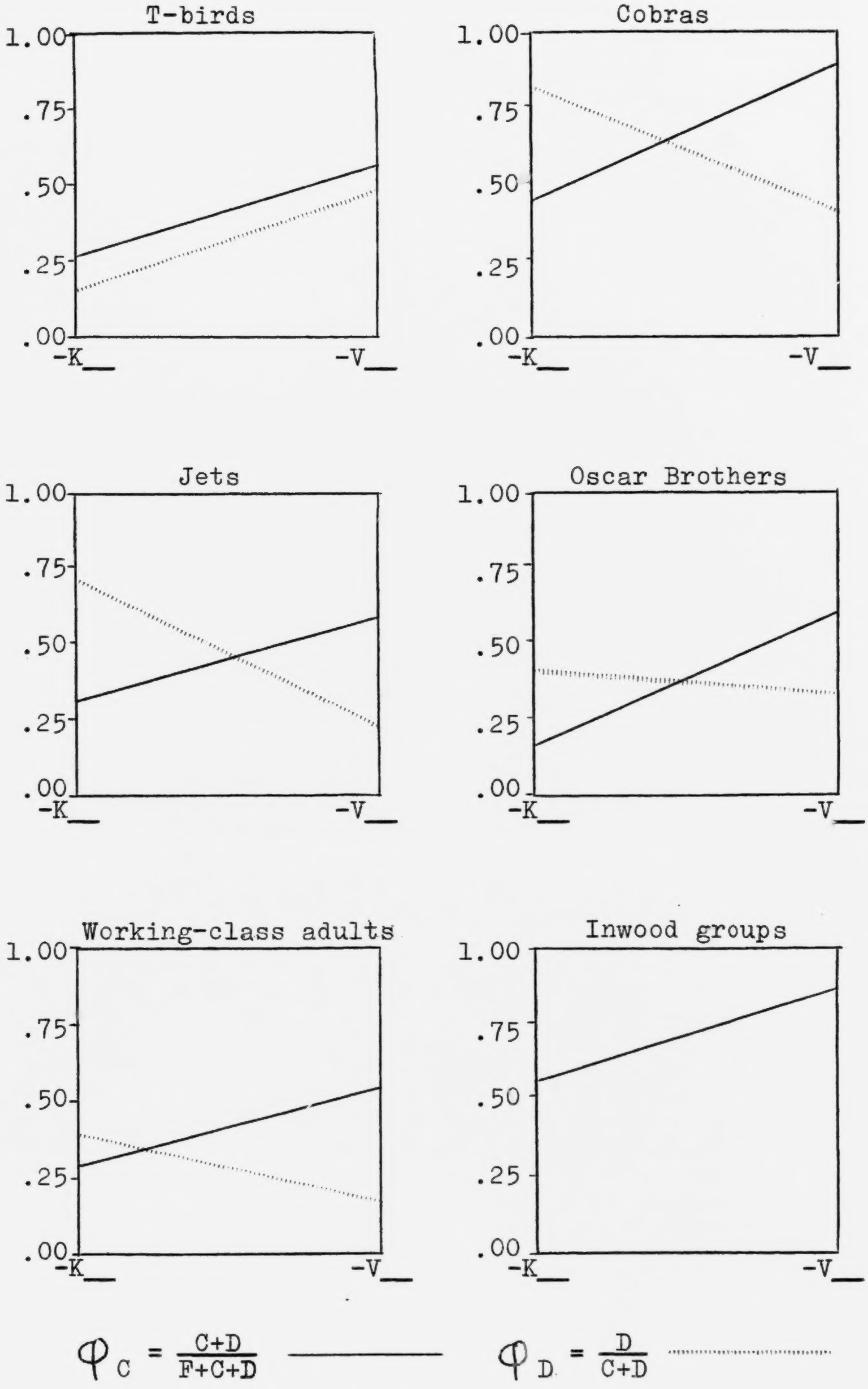
The pattern which prevails can be illustrated by (117) and (118).

(117) Stanley is here. $\xRightarrow{C}$ Stanley's here. $\xrightarrow{D}$ Stanley here.
CV VC CVC — CVC CVC — CV CVC

(118) Stan is here. $\xrightarrow{C}$ Stan's here. $\xRightarrow{D}$ Stan here.
CVC VC CVC — CVCC CVC — CVC CVC

In the case of a subject noun ending in a vowel, we see that contraction acts to reduce a CVVC sequence to CVC. (It is true that the first vowel may be diphthongized so that a glide interposes between the two vowels in the actual phonetic output, but this is not always the case in NNE.) On the other hand, when contraction operates upon a subject noun ending in a consonant, the result is a consonant cluster. There are a number of rules operating throughout NNE which reduce consonant clusters, although there is no single rule for all cases. In general, it can be said that NNE, like English and most Indo-European languages, disfavors final consonant clusters, and there are many examples of historical processes operating to reduce them. This tendency runs strongly in NNE, though it is by no means extreme in this respect.[33] In any case, the way in which contraction and deletion are opposed with respect to the preceding vowel clearly demonstrates that both contraction and deletion are phonological processes; furthermore, our original analysis that deletion is the removal of a lone consonant produced by contraction receives strong confirmation from the data presented here. We have thus arrived at the point farthest removed from the original suggestion that NNE has no underlying _be_ and corresponding _is_; and even the suggestion that the morpheme _is_ is deleted cannot be considered consistent with the data provided here.

Fig. 3-12. Effect of a preceding consonant or vowel upon operation of the contraction and deletion rules for six groups: single and group styles combined



$\varphi_C = \frac{C+D}{F+C+D}$ ———— $\varphi_D = \frac{D}{C+D}$ ┈┈┈┈

It is also apparent from Table 3-13 that the effect of a preceding pronoun upon contraction and deletion is in part dependent upon, but in part distinct from, the effect of a preceding vowel. Almost all pronouns end in tense vowels, and it is plain that contraction is heavily favored when the subject is a pronoun. But the effect is much stronger than for other noun phrases ending in vowels--in fact, it is to all effects a categorical rather than a variable rule. In the contraction rule, there will therefore be an entry /[*pro]__ which states that after pronouns, the rule is not a variable but a categorical one. In the case of deletion, it can be seen that the rule operates much more often when a pronoun precedes than when another noun phrase ending in a vowel precedes. Therefore the effect of a preceding pronoun will be one of the variable constraints upon deletion, though not necessarily the primary one.

Independence of phonological and grammatical constraints. To this point, we cannot be sure that the effect of a preceding vowel or consonant is not the product of some odd distribution of noun phrases before various complement categories, since the data of Tables 3-14and 3-15 treats all such categories alike. As we have seen in Table 3-13, a following verb strongly favors both contraction and deletion, and it is possible that the noun phrases which precede verbs are different from those which precede predicates. Table 3-16 shows the percentages of contraction and deletion, on the same basis as Table 3-15, but with the proportions for four following grammatical categories shown separately. Since the numbers necessarily become quite small, the figures for the four adolescent NNE groups are grouped together: the T-Birds, the Cobras, the Jets and the Oscar Brothers. The result shows that the opposing effect of a preceding vowel and consonant holds for all syntactic environments, except in the case of a following future in gonna, where both contraction and deletion are close to categorical, and the numbers are very small. In the other cases, we again observe that the effect of a preceding pronoun is semi-categorical for contraction, and that deletion is much stronger with a preceding pronoun than with a noun ending in a vowel. Table 3-16 thus provides us with additional confirmation of our analysis of the relations between contraction and deletion.

3.4.6. The rules for contraction and deletion. We can now incorporate the quantitative data of 3.4.5. into the logical development of ordered rules for contraction and deletion of 3.4.1.-3.4.4., using the formal apparatus of section 2.4. The outline on the following page shows a series of sixteen phonological rules of NNE in which the contraction rule (9) and the deletion rule (13) for is

TABLE 3-16

FREQUENCY OF OPERATION OF DELETION AND CONTRACTION RULES ACCORDING TO PRECEDING AND FOLLOWING ENVIRONMENTS FOR FOUR ADOLESCENT NNE GROUPS IN GROUP STYLE ONLY

	__NP				__PA/LOC			
	Φ_C	N	Φ_D	N	Φ_C	N	Φ_D	N
-K__	.37	35	.62	13	.25	32	.50	8
-V__	.80	64	.29	51	.70	23	.37	16
pro__	.94	32	.40	30	.98	65	.56	64

	__Vb				__gonna			
	Φ_C	N	Φ_D	N	Φ_C	N	Φ_D	N
-K__	.65	4	1.00	9	.89	9	.87	8
-V__	.86	14	.33	12	1.00	6	1.00	6
pro__	.97	34	.79	33	1.00	23	.96	23

SIXTEEN PHONOLOGICAL RULES OF NNE

**(0)	Nuclear stress rule	$V \rightarrow \overset{'}{V} \;/\; [\overset{'}{V}]\ldots[\,'\,]\;]_{\alpha}$
	⋮	
**(1)	Centralization of vowels before *r*	$V \rightarrow (\emptyset) \;/ \begin{bmatrix} \_\_ \\ -\text{low} \end{bmatrix} r\ [\alpha\text{cons}]$
(2)	Vocalization of *r*	$r \rightarrow (\text{ə}) \;/\; [-\text{cons}]\_\_\ \alpha(\#\#)\ *(\sim V)$
(3)	Vocalization of *l*	$l \rightarrow (\underset{\frown}{\text{ł}}) \;/\; [-\text{cons}]\_\_(\#\#)\ \sim V\ \ldots$
**(4)	Weak word rule	$[3\text{str}] \rightarrow [-\text{str}] \;/\; [\_\_, +W]$
**(5)	Vowel reduction	$V \rightarrow \text{ə} \;/\; [\_\_, -\text{str}, -\text{tense}]$
(6)	Loss of postvocalic *ə*	$\text{ə} \rightarrow (\emptyset) \;/\; [+\text{voc}, -\text{cons}, \alpha\text{high}]\_\_\#\#\ldots$
(7)	Loss of postvocalic $\underset{\frown}{\text{ł}}$	$\underset{\frown}{\text{ł}} \rightarrow (\emptyset) \;/\; [+\text{voc}, -\text{cons}\ldots]\_\_\#\#\ldots$
**(8)	Loss of initial *h*	$h \rightarrow (\emptyset) \;/\; \_\_\text{ə}\ C_{0}^{1}\ \#\#$
**(9)	Contraction	$\boxed{\text{ə} \rightarrow (\emptyset) \;/ \begin{bmatrix} *\text{pro} \\ \alpha V \end{bmatrix} \#\# \begin{bmatrix} \_\_ \\ +T \end{bmatrix} C_{0}^{1}\ \#\# \begin{bmatrix} \alpha\text{Vb} \\ \beta\text{gn} \\ ?\text{NP} \end{bmatrix}}$
(10)	Simplification of -sK clusters	$[-\text{cont}] \rightarrow (\emptyset) \;/\; [+\text{strid}]\_\_\#(\#) \begin{bmatrix} *\text{strid} \\ \alpha(\sim V) \end{bmatrix}$
(11)	General simplification of -*t*,*d* clusters	$t,d \rightarrow (\emptyset) \;/ \begin{bmatrix} \alpha\text{cons} \\ \vdots \end{bmatrix} \gamma(\#)\_\_\ \beta(\sim V)$
(12)	Assibilation of -*t*	$t \rightarrow s \;/\; [\_\_, +\text{pro}]\#(\#)[+\text{strid}]\#\#$
(13)	Deletion	$\boxed{[+\text{cont}] \rightarrow (\emptyset) \;/ \begin{bmatrix} -\beta V \\ \gamma\text{pro} \\ *\text{strid} \end{bmatrix} \#\# \begin{bmatrix} \_\_ \\ -\text{nas} \end{bmatrix} \#\# \begin{bmatrix} \alpha\text{Vb} \\ \beta\text{gn} \\ ?\text{NP} \end{bmatrix}}$
**(14)	Epenthetic vowel	$\emptyset \rightarrow \text{ə} \;/\; [+\text{strid}]\#(\#)\_\_[+\text{cont}]\#\#$
**(15)	Voicing assimilation	$[-\text{voc}] \rightarrow [\alpha\text{voice}] \;/\; [\alpha\text{voice}]\#(\#)\_\_\#\#$

~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~

For further discussion of rules other than (9) and (13):

Rule (1): p. 100 (3)
(2): p. 100 (4)
p. 105 (5-7)
(3): p. 118 (11)
(4): p. 187-8 (111)
(6): p. 106 (9)

Rule (7) p. 119 (11')
(10) p. 132 (12)
(11) p. 136 (13-14)
(12) pp. 212-213
(14-15) p. 333 (14')
p. 334 (14")

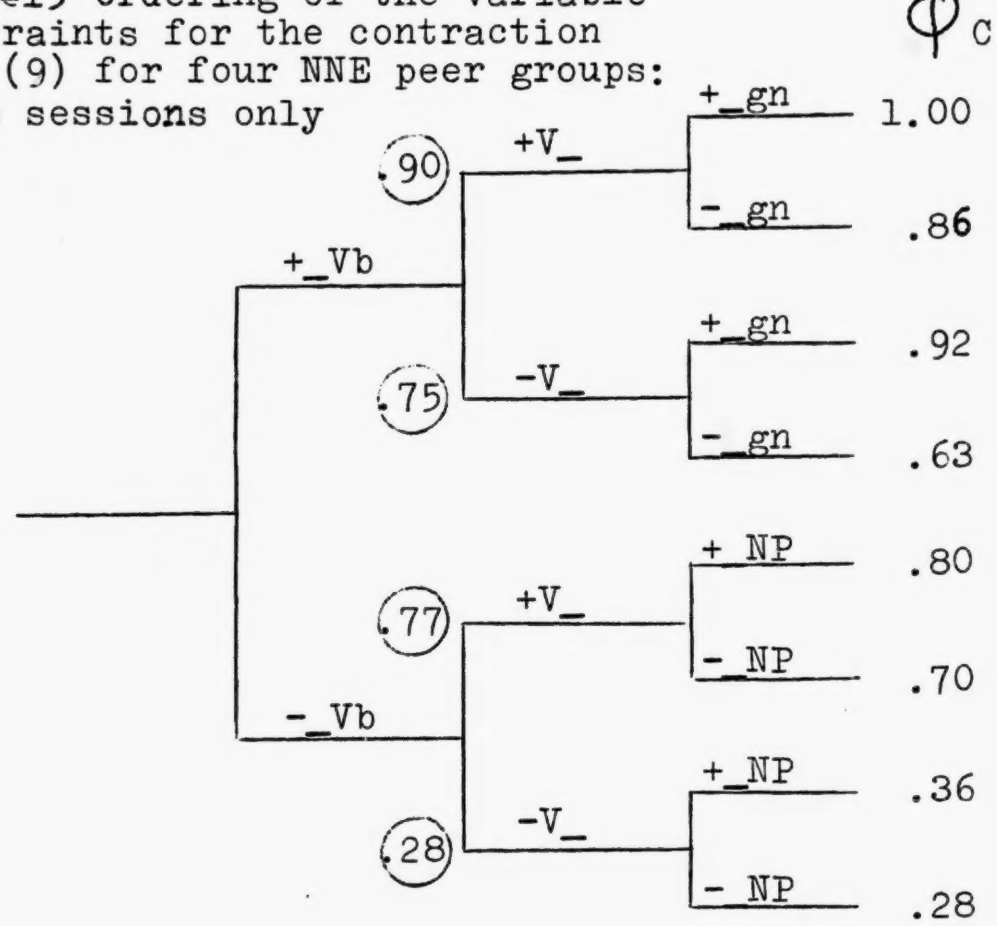
are embedded. The contraction and deletion rules are given in full; other rules are shown in enough detail to illustrate their general character and their relation to (9) and (13).

Only a few of these rules are peculiar to NNE; half of them are part of the basic machinery of SE, and operate in exactly the same fashion in NNE. This is the case for the eight rules marked with **. The nuclear stress rule operates well before any of the others to provide conditions for vowel reduction, as discussed above; the weak word rule (4) and vowel reduction (5) provide the [ə] upon which rule (9) operates. Rules (2,3,6,7, and 8) are relevant to other contractable items such as have, has, will and are, and will be considered briefly below. Rules (10) and (11) are concerned with -sps, -sts, -sks, and -t,d clusters in general, which intersect with the grammatical category of the past tense, and are considered in some detail elsewhere. Once we establish the basic conditions for contraction by rules (0), (4), (5), the behavior of is is governed by the five rules (9), (12), (13), (14) and (15), which we will examine here.

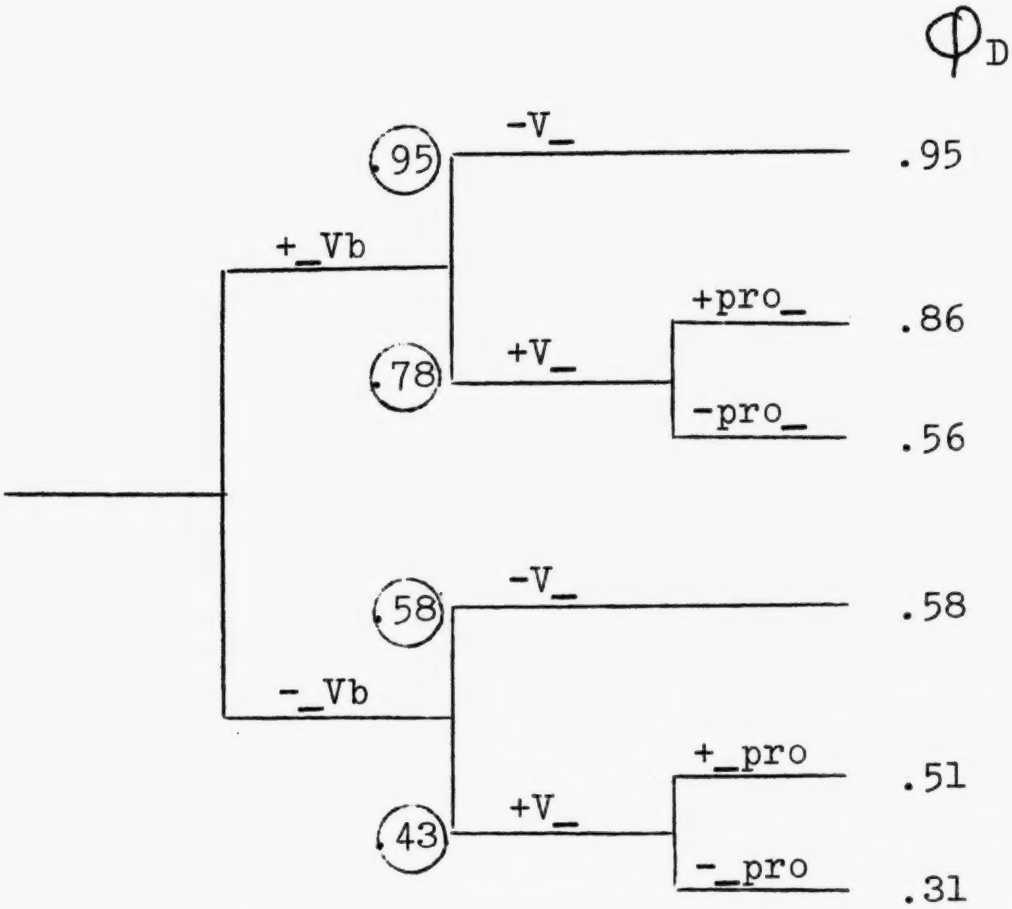
Form of the contraction and deletion rules. Rule (9) appears as the removal of a schwa, occurring initially before a single consonant, in a word with the tense-marker incorporated. When a pronoun proceeds in NNE, the rule is (semi-) categorical, as indicated by the invariance condition *. The variable constraints do not show a high degree of order: a preceding vowel and a following verb have approximately equal effect in promoting the application of the rule, while the effect of a following future in gonna is somewhat less. Figure 3-13 shows the resulting tree, incorporating data from the four vernacular NNE groups in group interaction. There are two variables, since __Vb and V__ are equivalent. Among the various non-verbal predicates, the effect of a following noun phrase as against a following predicate adjective or locative, is indicated clearly enough in the total results, but it is not consistent enough among the various peer groups to warrant incorporating it into the general rule for NNE.

The deletion rule (13) appears as the removal of a lone oral continuant between word boundaries. Here the variable constraints show a higher degree of order, as indicated in Figure 3-14. The primary constraint is the effect of a following verb, and the secondary constraint the effect of a preceding vowel-- but reversing the polarity for the contraction rule. The combination of these two yields the series of values .95 - .78 - . 58 - .43 which shows geometric ordering with an input value at a higher level than that shown in Figure 3-12. The third effect, that of a preceding pronoun is almost well ordered, but

Fig.3-13 Ordering of the variable constraints for the contraction rule (9) for four NNE peer groups: group sessions only



ϕ_C
+_Vb
.90
+V_
+_gn
1.00
-_gn
.86
.75
-V_
+_gn
.92
-_gn
.63
-_Vb
.77
+V_
+_NP
.80
-_NP
.70
.28
-V_
+_NP
.36
-_NP
.28



ϕ_D
+_Vb
.95
-V_
.95
.78
+V_
+pro_
.86
-pro_
.56
-_Vb
.58
-V_
.58
.43
+V_
+_pro
.51
-_pro
.31

Fig.3-14. Ordering of the variable constraints for the deletion rule (13) for four NNE peer groups: group sessions only

of course is not represented on the V__ branches. The __gonna constraint is not shown here, but has about the same weight as V__, and like all other variables except V__, it follows the same direction as with contraction.

The quantitative data presented in this paper is sufficient to establish the major variable constraints upon these rules--constraints which are independent of each other and which recur regularly in almost all styles and peer groups. It will no doubt be possible to modify this presentation in the future, as more data is accumulated; there are many interesting questions concerning various predicate types to be investigated. But the purpose of this type of analysis is not to explore every conceivable constraint upon a variable rule to the limits of reproducibility, but rather to apply the logic of these converging (and diverging) patterns to establishing the place, form and order of the deletion and contraction rules of NNE.

One of the first, and most obvious arguments on order springs from the predominance of i's, tha's and wha's [ɪs, ðæs, wʌs] as the NNE phonetic output of underlying it is, that is and what is. At first glance it seems obvious that the assimilation of the /z/ to the preceding voiceless stop has produced an [s] which is not subject to the deletion rule, and therefore deletion does not apply.[34] In the light of this evidence, we would order the voicing assimilation rule before the deletion rule. We would then have derivations such as the following:

(119)	ɪt##ɪz	
	ɪt##əz	vowel reduction
	ɪt## z	contraction
	ɪt## s	voicing assimilation [deletion-- does not apply]
	ɪs## s	assibilation
	ɪ ## s	reduction of geminates

After a sibilant, we have two possible routes, as shown in (120).

	A	B	
(120)	fɪš##ɪz	fɪš##ɪz	
	fɪš##əz	fɪš##əz	vowel reduction
		fɪš## z	contraction
		fɪš## s	voicing assimilation
		fɪš##	deletion

The first tendency is to deny that contraction can take place after sibilants, though we do encounter rare cases. But the existence of a sizeable number of zero forms makes it seem clear that route B is followed. Deletion of /z/ after a sibilant must therefore be categorical, as indicated in the rule by [*strid__].

However, the case of the plural *fishes* poses a more difficult problem:

(121)	fɪš#z	
	fɪš#s	voicing assimilation
		deletion [does not apply across inflectional boundary]
	*fɪš#əs	epenthesis

This result is plainly wrong, and we are forced to conclude that voicing assimilation is ordered after epenthesis, so that it will not assimilate /z/ to a preceding voiceless sibilant. But epenthesis must come after deletion, for the whole force of the evidence in section 3.4.5. indicates that deletion is the removal of a lone consonant; we do not find any remnants of an epenthetic vowel in expressions such as **That des'* [ə] *mine* or **One fish* [ə] *on my line*.[35] And assibilation must precede deletion if forms such as *i's* are to survive as regularly as they do. Therefore, the correct order must be:

contraction
assibilation
deletion
epenthesis
voicing assimilation

It is an attractive notion to place the rule of voicing assimilation last, since this is actually a very general constraint upon the form of final clusters which contain morpheme boundaries. But this order is contrary to the notion expressed above that in i's, /z/ is assimilated to [s] before deletion. The contradiction lies in the assumption that the [s] of [ɪs] is derived from *is*, as indicated by the practice in dialect literature of writing *i's*. However, it now seems clear that this [s] is the assibilated [t] of *it*--the verb *is* has entirely disappeared, leaving only this footprint on the preceding pronoun, in the following fashion:

(122)	ɪt##ɪz		
	ɪt##əz	vowel reduction	(5)*
	ɪt## z	contraction	(9)
	ɪs## z	assibilation	(12)

We have already seen that deletion must be categorical after sibilants, so it follows that the result is

ɪs##	deletion	(13)

---

* Numbers on the right refer to rule numbers in "Sixteen Phonological Rules", p. 210.

The order (12)-(13)-(14)-(15) as shown in the rules therefore gives the correct results. Rule (12) shows that assibilation is restricted to words with [+pro]; there are four such pronouns ending in -t: it, that, what and lot. It is a rule which applies with a somewhat lower input for other [WNS] dialects of English. Neither NNE nor WNS use [pæsgʊd] for Pat's good, nor rhyme with [ðæsgʊd] for That's good.

It is possible that the restriction of the assibilation rule to pronouns and lone /z/ is too sharp: the rule may apply to other frequent forms ending in -t, such as outside. However, we do not have enough evidence at present to judge whether the rule operates regularly in cases such as these, and intuitions are quite unreliable in these areas of morphological condensation.

Given the rule order shown above, we have the derivations

	A	B	C		
(123)	fish is	fish is	fish [pl]		
	fıš##ız	fıš##ız	fıš#z		
	fıš##əz	fıš##əz		vowel reduction	(5)
	fıš## z			contraction	(9)
	fıš##			deletion	(13)
			fıš#əz	epenthesis	(14)
				voicing assim'n	(15)

The form fish is can follow route A or B, depending on whether contraction applies, yielding The fish good today or The fish is good today. The plural fishes appears only as [fıš#əz], since deletion does not apply across an inflectional boundary. The epenthesis rule can also apply to [fıš##z], so that we could have the alternative derivation to yield the same result as B

	D		
(124)	fish is		
	fıš## z		
	fıš##əz	vowel reduction	(5)
	fıš## z	contraction	(9)
		deletion	(13)
	fıš##əz	epenthesis	(14)

In this case, the deletion rule would not apply categorically after sibilants. However, the quantitative evidence of Table 3-14 shows that derivation A is heavily favored, and if the contraction rule applies with roughly the same frequency after sibilants as after other consonants, it seems that deletion is (semi-) categorical after sibilants, yielding very rarely a contracted but undeleted form [fıšs].

One prominent characteristic of NNE morphology is that final clusters in -*sts*, -*sps* and -*sks* are obligatorily simplified, so that an underlying form //test// (which shows up in the verb form *testing*) cannot have a plural [tɛsts]. The phonetic form which does appear is chiefly [tɛsəz]. This form is derived by the following sequence

(125)

tɛst#z		
tɛs #z	simplification of -sC clusters	(10)
tɛs #əz	epenthesis	(14)

In this environment, the simplification of -sC clusters is categorical, as indicated in rule (10). For the sequence in *The test is*... one can obtain

(126)

tɛst##ɪz		
tɛst##əz	vowel reduction	(5)
tɛst## z	contraction	(9)
tɛs ## z	simplification	(10)
tɛs ##	deletion	(13)

But the contraction rule is not categorical here; when it does not apply, the simplification of -sC clusters now takes place before a following vowel, and it is possible to get either A or B:

(127)

A	B		
tɛst##ɪz	tɛst##ɪz		
tɛst##əz	tɛst##əz	vowel reduction	(5)
		contraction	(9)
tɛs ##əz		simplification	(10)
		deletion	(13)

It appears then that rules (5-15) are strictly ordered, with the exception that the general -*t,d* simplification rule (11) cannot be ordered with respect to the deletion rule (13), since they apply across different boundaries, nor with respect to the assibilation rule (12), which never applies to clusters.[36]

3.4.7. *The problem of what I mean*... The general principle underlying the discussion so far is that the possibility of contraction in SE is in a one-to-one correlation with the possibility of deletion in NNE. However, the following quotation seems to be a blunt contradiction of this principle:

(128) What I mean by bein' destroyed, they was brought up into they rightful nature. [29, N.J.,#737]

This is a case of clause-final *is*, produced by *WH*-attraction, and the rules of stress assignment and vowel reduction presented above will not allow this to be contracted.

(129) *What I mean by being destroyed's, they were brought up unto their rightful nature.

There is nothing in the development so far to indicate that this principle can be variable. For the contraction rule is dependent on the categorical stress assignment and reduction rules, and if contraction does not occur, we have argued, deletion cannot occur.

This is not a rare phenomenon in NNE; we have many other examples.

(130) All I knowed, that I was in the hospital. [13, T-Birds, #458]

(131) All I could do, as' him what he's tryin' to do. [16, NYC,YH33]

(132) But next thing I knew, he was on the ground. [16, Jets, #560]

Careful investigation of these examples shows that the deletion of *is* is not the product of our deletion rule (13), but a very different process. The evidence for this depends upon several empirical and theoretical points.

First of all, it should be apparent to native speakers of WNS that this deletion is not absolutely impossible for white speakers. Expressions such as

(133) What I mean, he's crazy.

(134) All I know, he's going home.

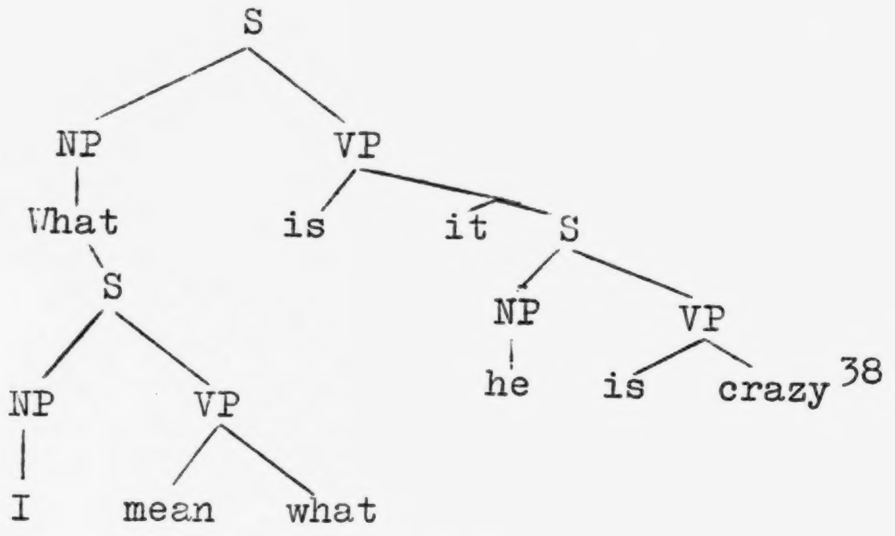
though not derived from our data, appear quite acceptable to many WNS speakers. Furthermore, we note that all of these cases involve verbs of *saying*, *knowing*, *meaning*--which take sentence complements, and the pro-verb *do*. We have no NNE sentences of the type

(135) *All I broke, my leg.

and WNS does not find this acceptable either.[37]

The fact that white speakers can delete this *is*, but no other *is* in sentences of the type (22-39), makes us suspect that we are dealing with a different mechanism than the deletion rule itself. The special constraint on verbs of *knowing* and *saying* adds to this impression. Sentences of this type include the class of "cleft sentences" which play an important role in Rosenbaum's discussion of noun phrase complementation (1967), although they are not analyzed there. We are of course concerned with the surface structure, rather than the deep structure, since the former determines the application of the stress rules, but the deep structure will ultimately determine the operation of the critical transformations involved. One approach is to trace sentences of the type (133) to the following intermediate structure, after WH-attraction has applied:

(136)



After the object *what* of the relative clause is removed, and the *that* complementizer is placed before the complement sentnce, we have the constituent structure

(137) $[\text{What } [\text{I mean}]_S]_{NP}\ [\text{is } [\text{that he is crazy}]_S\ ]_{VP}$

where the main verb of the sentence is *is*, appearing before a sentence. According to the analysis that we have given so far, this particular *is*, in construction with a following sentence, should be contractable, just as other copulas before sentence complements:

(138) My home's where I want it.

Yet most people do not easily accept

(139) *What I mean's he's crazy.

A cleft sentence of the type

(140) What he is is smart.

can be contracted to

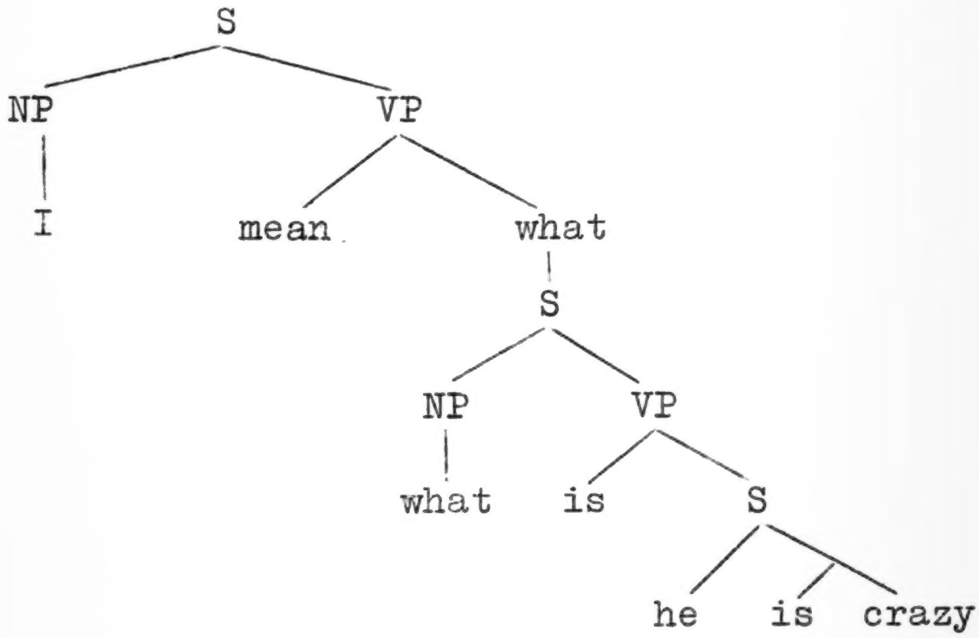
(141) What he is 's smart.

--but not to

(142) *What he's is smart.

--even though (142) seems easier to say from the phonetic point of view, with two successive sibilants. All of these considerations make us suspect that (136) is not the correct analysis of the sentence structure. There is an alternative analysis of (133) which is (143):

(143)



Here the main verb is mean, and the is is the verb of the relative clause. The rule which deletes is is then the same rule which operates to reduce the book that is yellow with age to the book yellow with age: it is a transformation needed for all dialects of English, applying much earlier and quite independent of the phonological processes discussed above. If this is indeed the structure of (133), we can understand why both white and Negro speakers can delete this is, although it cannot be contracted. The same reasoning applies to (140-142). If the first is is the main verb of the sentence, it no longer stands in construction with its object *what*, which has been moved to the front by WH-attraction, and therefore has the same status as sentences of the type *That's what he is*.

3.4.8. *Contraction and deletion of are*. The first and most obvious fact about NNE *are* is that it appears far less often than NNE *is*. Since even linguists perceive language categorically, it is easy to get the impression that NNE speakers have no *are* in the positions of (22-39). It is obvious from examples given in other syntactic positions--(87,88,89,91,93) that *are* is well established in the underlying grammar of NNE. We even obtain it in tag questions which are relatively rare.

(144) You're a reporter, aren't 'cha? [15, Chicago, #471]
We on tape.

Here we have the full, contracted and zero form of *are*. A careful grammatical searching of the peer-group records shows that even though full and contracted forms of *are* occur infrequently, they do occur with the same systematic variation and respond to the same constraints as *is*. Table 3-17 shows the number of full, contracted and deleted forms of *are* for the T-Birds, Jets, Cobras and Oscar Brothers, and Figure 3-15 shows the frequency of contraction and deletion of both *is* and *are* for one group--the Thunderbirds. Table 3-17 and Figure 3-15 show only one of the constraints upon the contraction and deletion rule as far as *are* is concerned--the effect of the following grammatical category--but this data is sufficient to illustrate the fact that the same rule is operating upon both *is* and *are*.

In order to understand the operation of the rules upon *are*, it is necessary to observe the operation of the *r*-vocalization rule and the loss of post-vocalic schwa upon this form. Rule (2) for the vocalization of *r* (discussed in greater detail in 3.1.2.) operates to change the central liquid consonant [r] to a central vowel [ə]. This [ə] is removed by rule (6), the same rule which is responsible for [po'] for *poor* and [do'] for *door* (see 3.1.2. for further discussion). The results of these processes can be seen in the results of the derivation (145):

(145)	##ar##		
	##aə##	vocalization of *r*	(2)
	##aə##	weak word rule	(4)
	##əə##	vowel reduction	(5)
	##ə ##	loss of post-vocalic *ə*	(6)
	## ##	contraction	(9)

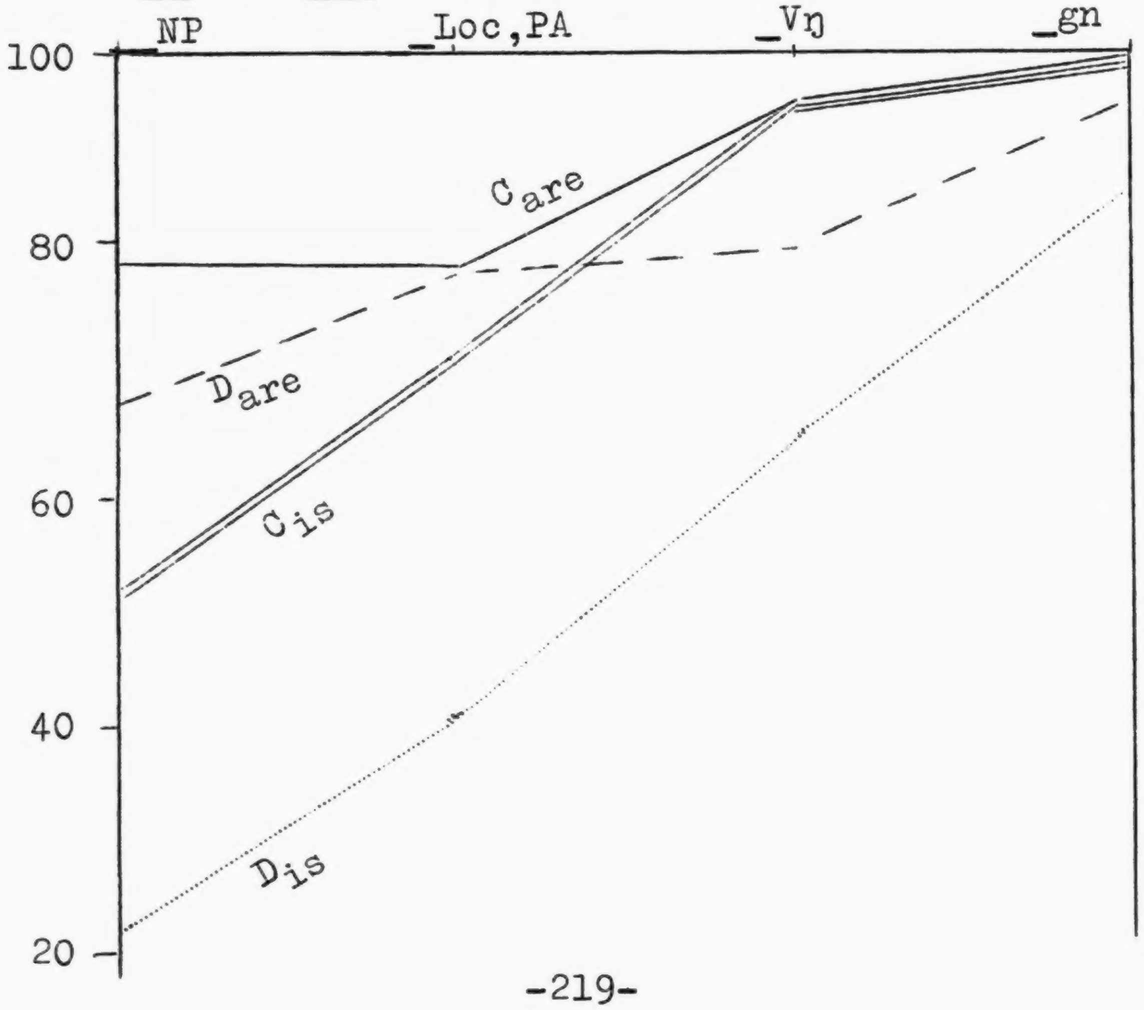
TABLE 3-17

RESPONSE OF CONTRACTION AND DELETION OF IS AND ARE TO FOLLOWING GRAMMATICAL CATEGORY FOR NNE PEER GROUPS

	T-Birds	Cobras	Jets	Oscar Br.
are				
__NP	3/7/22	8/10/20	1/11/28	0/0/5
__Loc,PA	6/7/54	4/16/55	4/11/61	2/8/30
__Vŋ	2/7/44	1/ 6/41	2/ 8/65	1/4/35
__gn	0/2/62	0/ 3/21	0/ 5/39	0/0/13
is				
__NP	95/78/48	59/56/50	161/117/119	18/10/11
__Loc,PA	32/40/48	33/32/92	89/109/125	20/38/32
__Vŋ	2/14/30	5/ 9/19	6/ 17/ 67	5/ 5/22
__gn	0/ 5/35	0/ 1/34	2/ 2/ 54	1/ 0/25

x/y/z = full/contracted/zero forms

Fig. 3-15. Contraction and deletion of is and are for the Thunderbirds



Contraction of *are* is therefore equivalent to deletion; there is nothing left for rule (13) to apply to; or if contraction does not apply to some forms, the deletion process will certainly eliminate them. In any case, the net result is that in NNE far fewer forms of *are* survive as compared to *is*, as shown in Table 3-19.

The contraction rule (9) shows the environment $\_\_C_o^1$, which includes the case shown above where there is no consonant.

A fuller form of this rule might appear as (146):

$$(146) \quad ə \rightarrow (\emptyset) \;/\; \begin{bmatrix} *\text{pro} \\ \beta \text{V} \end{bmatrix} \#\# \begin{bmatrix} \overline{} \\ +\text{T} \end{bmatrix} \underset{C_o^1}{\begin{bmatrix} *\text{nasal} \\ \alpha\, \emptyset \end{bmatrix}} \#\# \begin{bmatrix} \begin{Bmatrix} \beta \text{Vb} \\ \gamma \text{gn} \\ \delta \text{NP} \end{Bmatrix} \end{bmatrix}$$

We will not attempt here to integrate all of the *are* and *is* data to justify the higher degree of order shown here. The [*nasal] feature indicates that the contraction rule applies (semi-) categorically to *am*, a statement which is fully justified in Table 3-11.

One of the most interesting aspects of this analysis of *are* contraction is that it explains why white Southerners can delete *are* but not *is*. We have a certain amount of exploratory evidence to show that this is indeed the case. The white sheriff of Beaufort County, South Carolina, addressing a Negro carpenter, said:

(147) "We fishin' up a storm down there...
you doin' good, doin' good. You
buildin' out yonder to the Harkness garage."

A waitress in South Carolina said, *You gittin' the salad*. A woman clerk in a supermarket outside of Durham, North Carolina said, *Cucumbers? We out of them*. We do not have sufficient evidence to prove that white Southerners do not delete *is*, but the intuitive responses of many linguists raised in various areas of the South agree on this point. We can understand how white Southerners can delete *are*, since they have the *r*-vocalization rule and the rule which deletes post-vocalic schwa (even though the overt evidence of this rule *po'*, is not stigmatized for white speakers). But rule (13) for deletion, does not exist in WNS, and therefore white Southerners cannot delete *is*.[37]

3.4.9. *Person-number agreement for am, is and are*. The discussion of *is* and *are* and references to deleted forms of *is* and *are* presuppose that expressions such as *he with us* and *we on tape* can be traced back to *he is with us* and *we are on tape*. This assumption depends upon there being regular person-number agreement in these cases; since there is no agreement exhibited in forms such as *do* ~ *does*, *was* ~ *were* and *have* ~ *has* (as we will see in 3.6 below), it would seem reasonable to doubt the existence of the agreement with *is* and *are*. Furthermore, there is no third person singular *-s*, as we have seen in section 3.3, so that there is no agreement with the regular verb. Nevertheless, NNE does show firm person - number agreement with forms of *am*, *is* and *are* which match the distribution of SE. Table 3-18 shows the numbers and percentages of disagreement for *is*.

There is only 5^{o}/o disagreement--that is, cases where *is* is used in contexts which would demand *are* in SE. These figures range from a low of 1.3^{o}/o for the Thunderbirds in group style to a high of 8.1^{o}/o for the Jets in group style. This means that in Table 3-17, only one out of twenty of the deleted forms registered may have been cases of deleted *is* rather than cases of deleted *are*. This amount of disagreement could not effect the overall conclusions about the status of *are* in NNE. It is interesting to note that this level of disagreement is, though small, characteristic of NNE and not WNS: the Inwood speakers show only one case of disagreement in 344 cases of full or contracted *is*.

The level of disagreement for *are* is very low. Out of 139 cases of full or contracted forms of *are*, we find only one case of disagreement. In other words, NNE speakers do occasionally say *they is*, but almost never say *he are*--the disagreement is in one direction only. This means that the treatment of contraction and deletion of *is* is quite unaffected by any effect of disagreement: or we may assume that all of the zero forms of *is* in singular context are derived from an underlying *is*. Finally, we have observed in Table 3-11 that there is practically no disagreement in the first person singular. Cases of *I + is*, or even *I + Ø* are well below the one percent level, and do not form part of the pattern of NNE.

3.4.10. *Effect of the rules on have*. The major share of our attention in this study has been given to the major forms of *be*, but the same rules operate upon the auxiliary *have* with strong effect. First of all, it must be noted that *have* is relatively infrequent in NNE, even in positions where reduction, contraction and deletion have no effect. Some observers believe that there is no underlying *have* in NNE (Loflin 1967) but

TABLE 3-18

PERSON-NUMBER DISAGREEMENT OF IS

	STYLE	No. of *is* forms in -3s contexts	Total *is* forms	°/o disagreement
Thunderbirds	A	1	77	1.3
	B	9	228	4.4
Cobras	A	2	74	2.7
	B	7	134	5.2
Jets	A	11	136	8.1
	B	21	424	5.0
Oscar Bros.	A	5	108	4.6
	B	3	82	3.7
Inwood	A	1	193	0.5
	B	0	151	0.0
Working class adults	A	16	237	6.8
	B	19	305	6.2
		97	1832	5.3

this conclusion can be maintained only by ignoring the actual speech performance of NNE speakers. For example, from the first few feet of a tape recorded in the Urban Dialect Study of the Center for Applied Linguistics, in excited and spontaneous **speech of a** pre-adolescent boy, we hear:

(148) **You haven' play wi' de Hornets!**

Table 3-19 shows the actual numbers of occurrences of have which we found in our grammatical searching of NNE texts. There are not very many--only 66 in all in that portion of data submitted to grammatical searching. We can compare this with the 1,041 examples of 'm which we found in the same data. At the same time, we observe that the Thunderbirds, the Cobras, the Jets and the Oscar Brothers--all show some examples. The Thunderbirds show the fewest, and none in group sessions, but there were sufficient numbers in the speech of the Cobras and the Jets to make us believe that have is an underlying form in NNE.

A good number of these occurred in final position, but a certain number appeared in the positions of (22-39). We even have some cases in each group of have occurring before been. It is far more common to have zero forms before been. Table 3-19 also shows the number of cases in which a have which would have been expected before been and seen did not occur--that is, "zero forms".

A very large number of such cases--108-- were found in which no form of have occurred before been, and indeed it has been suggested that been is a perfective marker by itself. However, an examination of Table 3-19 shows that all of the NNE peer groups also show some cases of have before been, in roughly the same proportion--as the total occurrences of been. In fact, the 14 cases of have + been out of 122 possibilities represents a higher percentage than the number of cases of are which were actually realized in full and contracted forms. Relatively few examples of 've were found and there were a moderate number of cases of 'a. We also find six examples of haven't been.

The infrequent use of have may be partially conditioned by semantic factors. We do not believe that the occurrences of have represent importations from SE: the lames who frequently do show diluted NNE grammar do not show any more have than anyone else. It seems clear that most of the occurrences of have in the positions of (22-39) are deleted by a phonological process similar to those we have discussed above. The full forms which are not contracted of course, survive; but contraction leaves a lone [v]

TABLE 3-19

INCIDENCE OF have AMONG NNE PEER GROUPS

	STYLE	Total	-a	_#	_been	_seen	_been	_seen	had
			have				Ø		
T-Birds	A						7	1	
	B	2	1		1		5		24
Cobras	A	6	2				1		3
	B	18			6	1	13	2	27
Jets	A	5	2				8		5
	B	25		10	3	4	49	4	66
Oscar Br.	A	1					3	2	18
	B	7			3	2	2	3	6
Lames	B	2			1		20		1
		66	5	10	14	7	108	12	150

which is subject to deletion by rule (13). In other words, the same rule which removes the lone voiced fricative [z] also removes the voiced fricative [v]. This labio-dental fricative is particularly prone to deletion before [b], no doubt due to assimilation to the [b] and simplification of the resulting geminate.

The past equivalent of have ~ had is quite common in NNE. Our exploratory interviews with pre-adolescents show that had is freely used in narrative, in expressions such as I had came over. Table 3-19 shows 150 examples of had in our four NNE peer groups, distributed in roughly the same proportions as have. The phonetic processes which operate upon a lone [d] are relatively weak, as noted in section 3.2, and it is therefore natural for the had to survive.

The combination of have + past is as common in NNE as plain have is uncommon. Expressions such as (149) occur in almost every narrative:

(149) When I went down there--they almost had took me away. [13, Jets, #606]

The frequency of had does not seem to diminish as one moves to younger speakers. In our five exploratory interviews with 7 to 8-year olds, we found that had occurs quite freely:

(150) I had came over. [8, Thunderbirds, #933]

It is quite common for the form of the verb to be non-standard, indeed unpredictably so, since it is doubtful if there is a consistent differentiation between the preterit and perfect forms of the verb in NNE, as we have observed elsewhere (see 3.5.4).

The contraction rule cannot of course apply to have until the h- is removed, and the preceding rule (8) does this. This is a very general rule of English, which operates upon the pronouns, his, her and him, as well as have, had, and has. The only conditions necessary are that an initial h- precede a schwa and a single consonant (or none). Contraction does not, of course, operate upon the pronouns his, her and him, since they do not contain the tense marker. The apostrophe used in literary conventions, 'er, 'im, merely indicates the deletion of h- by (8). Contraction does operate upon have, has and had when they contain the tense marker as noted above. The deletion rule as now constituted will then remove any lone continuant including [v] and [z] (no voiceless continuants occur in this position). The rule does not remove [d], since it applies only to continuants and does not remove [m] since the rule is marked [nasal]. From the data of Table 3-19, we can conclude that deletion occurs more frequently with the grave continuants [v], but we do not have enough data to specify the ordering here or the exact influence of a following labial, as in I've been. This view of the phonological processes which eliminate an underlying have is consistent with the sizeable number of appropriate occurrences of this member of the auxiliary in NNE. Adults use more have than adolescents:

(151) We have said it...we have said it when I was a child. [17, S.C., #852]

But we also find it in adolescent speech, in the positions of (22-39) where it might have been contracted and deleted. The following example is from the speech of an eleven-year-old who is not a peer-group member:

(152) Since time they have invented baseball cards... [11, NYC, #751]

But also from the group sessions of the Cobras:

(153) We will have succeeded...[15, Cobras, #655]

Contracted forms are relatively rare, but they do occur:

(154) I would've been dead. [13, Cobras, #747]

In the following case, contracted have appears in the first clause, and zero before been in the second clause:

(155) I think he've had it since he been goin' to this school. [46, N.C., #665]

We also find have occuring somewhat more frequently, in the positions in which contraction and deletion cannot take place. In questions, as in (148) and (156) below:

(156) Have you ever aten pork? [15, Jets, #599]

In the following elliptical response, the presence of have clearly contrasts with its absence before been. If indeed been had become the sole marker of the perfect, then we would not have have emerging in the emphatic addition:

(157) He been over there for a long time.
[KC:XX...]
Yes he have! [13, Jets, #610]

Note that in all these cases, the invariant form of the verb is have and not has. This is characteristic of NNE, as shown in section 3.5. Despite these examples, one cannot say that the position of *have* in NNE is entirely secure. The low frequency of the form may be coupled with the fact that some speakers do not show *have* where one would expect it. For example, the interviewer's question with *have* is ~~not~~ answered with the auxiliary *was* by this adult:

(158) [Can you give me an idea of the different places you've lived?]

Well, I was livin' - uh - in the Bronx, Brooklyn...
[39,NYC #802]

This reply is not peculiar in itself, but it is odd as the second member of a sequence. Further, the following example shows was where SE or most NNE speakers would use *had*:

(159) This Spanish guy was come over here...
[11, NYC, #416]

We also have one example where the auxiliary *did* occurs in a question, as if there was no underlying *have* in the phrase structure:

(160) Did you ever heard? [14, Jets, #599]

These examples are parallel to the re-analyses evident in the rare examples of *I'm is*, *Was I'm up here*, *I's go*, but they are relatively more frequent with *have*. The process implied is not unique to NNE. We can observe a parallel case in various dialects of **WNS, which** reduce *have* to [ə] after *could*, *would*, to yield *he coulda*, *he woulda*, so frequently that it becomes a fixed form. When emphatic *have* is re-introduced we have *coulda have* and *woulda have done it*. NNE shows the same pattern. After using *coulda went* four times in a row, one 12-year-old then says *coulda have went*.[39]

Thus we must distinguish between the basic pattern of NNE as revealed by examples (149-157) and the exceptional examples of *have*-disturbance of (158-161). These latter are not insignificant: they reveal the kind of disturbance in the grammatical system which is caused by variable phonological processes as they near the semi-categorical status. Some re-analysis or lexical change is imminent at that point, whether it means the assessment of *coulda* as a single morpheme, or of *been* as a perfect marker in I *been* born. We are familiar with such changes in the history of English, where, for example, the steady attrition of phonological processes brought about the reinforcement of original pre-verbal *na:* with a post-verbal *na:t*, itself the result of phonological condensation. Although these disturbances in the NNE grammatical pattern may appear minor on the surface, they may reflect serious difficulties in recognizing and using the unreduced forms in school. It is also possible that these disturbances represent the inherited effects of an underlying Creole grammar, but we have little evidence to substantiate this notion at present.

3.4.1 . The invariant verb be_2 There is one feature of the NNE verb system which seems to be unique to the NNE system, and is not shared by any WNS dialect or by SE, and that is the use of the invariant verb be with a meaning of 'habitual' or 'general'. The systematic nature of this feature was first discussed by Stewart (1964), and has since been discussed in some detail by others; Fasold (1968) has presented one view of the semantics involved based on data in the Detroit Dialect Study and the Urban Language Study of the Center for Applied Linguistics.

The formal facts concerning this invariant be are very simply stated: In addition to the various forms am, is, are and zero which correspond to the SE finite forms of be, there is an invariant form be which NNE speakers' use. Examples (161-165) illustrate the use of this be, in the syntactic environments of (22-39) where SE would use am, is and are.

[__NP]

(161) But it don't usually be that way.
[39,NYC,#802]

[__PA]

(162) 'cause he be mad...
[15, Oscar Brothers,#616]

[__Comit]

(163) I be with the Jets--you know--a lot. They O.K.
[14, Jets #616]

[__Loc]

[to KC]
(164) We don't be in the house; we be on top of the house...

[to friend]
But we don't be there anymore, dummy!
[15, NYC, #622]

[__Vŋ]

(165) ...he be always takin' off someone...
[15, NYC, YH33]

Formally, the word *be* behaves just like any other main verb. It does not behave like a member of the auxiliary; it does not follow the flip-flop rules for questions, and it does not combine with the negative. The support of *do* is required with the negative, as in (166) and do can be used optionally for emphasis, as in (167).

(166) So you know it all don't be on her; it be half on me and half on her.
[12, Chicago, #307a]

(167) When he *do* be around here...
[Danger Girls, #821]

There are, of course, English dialects which use *be* as a member of the auxiliary, and develop such contractions as *be'n't*, but the NNE *be* has no auxilairy features at all. We have no data on tag questions with *be*, but it seems unlikely that *be* would appear in a tag.

In the following discussion we will refer to variable *be*, which alternates with *am*, *is*, *are* and *was*, as *be*$_1$. The invariant *be* we will designate *be*$_2$.

The semantics of invariant *be*$_2$ have aroused considerable interest, primarily because this is one obvious positive feature of NNE which does not seem to be shared by any white dialect. From one point of view, *be*$_2$ is simply another verb--the addition of one lexical item, whatever it may mean, to the dictionary. However, there is much more to *be*$_2$ than a simple lexical item like NNE *poontang* or an idiom like *here go* for *there is*. NNE has a vast number of such specific entries in the dictionary, marked for NNE only. *Be*$_2$ has three characteristics which mark it as a member of the "grammatical" system--a member of the closed class of function words:

(a) *Be*$_2$ is exceedingly frequent--from three to ten per cent of the environments in which finite *be*$_1$ can occur are actually filled by this invariant *be*$_2$.

(b) Because the form of invariant *be*$_2$ is homonymous with non-finite *be*$_1$, the uses and occurrences of the two *be*'s--variable and invariant--intersect and overlap, and are frequently confused. When the tense marker is not present, we have no means of distinguishing between the two: that is, the distinction between variable and invariant *be* is neutralized in all non-finite positions.

(c) The meaning of *be*$_2$ is difficult to specify; the vagueness, ambiguities, and wide range of interpretations are typical of the semantic problems associated with such SE function words as the auxiliaries *have...ed*, *be...ing*, or *would*.

From this last consideration, it is clear that we should be cautious in our approach to the semantics of *be*$_2$. There is absolutely no agreement on the semantics of the SE verbal system; the meanings of *have...ed* and *be...ing* have been disputed for centuries, and there is no sign of any one of the conflicting interpretations being accepted by a majority of linguists or teachers. Native speakers of English do not of course look up the meanings of *have...ed* in dictionaries; clearly these are primitive semantic elements which operate well below the surface. No one now investigating NNE, including our present staff, can boast of a native command of NNE, for as we shall see in Chapter 5, this knowledge evaporates rapidly on contact with SE. And if we cannot agree on the meanings of the SE auxiliaries, how can we claim to do better with NNE, which is less accessible? Fanciful and speculative essays on the meaning of *be*$_2$ can only do harm, no matter how interesting they may be to linguists; for a great many SE educators, striving to come to grips with NNE, may seize these notions without the data to assess them critically, and impose them upon educational materials.

With this caution, we can proceed to examine the meaning of invariant *be*$_2$. First of all, it is clear that it intersects with the meaning of *be*$_1$, for the latter is the unmarked term which can occur in any context where *be*$_2$ can occur, but not vice versa. Thus, we have such cases of intimate variation as (168) in which *be*$_2$ varies with *is*, and (169) where it varies with zero (both examples from the same speaker):

(168) Like--...
She be standin' with her hand in her pocket,
and her friend is standin' there, and a
man is messin' with her friend,....
[15, Oscar Brothers, #584]

(169) Like--
If you be beatin' him and he down and he
say, "Man, I quit," and you get up and
you walk away, he'll hitcha.
[15, Oscar Brothers, #584]

As far as we can see, there can be no difference in the meanings of the environments here. The invariant *be*$_2$ may carry a semantic mark, but it is never obligatory. The variable *be*$_1$ is the unmarked term which does not contradict *be*$_2$. Thus it seems that you could not say *_he don't be there; he is there_.

It is easy to find examples of *be*$_2$ in conjunction with adverbs which throw some light on its meanings, such as *all the time*, *always*, *usually*, *never*, *most of the time*; *sometime*:

(170) ...when you don't be talkin' about someone
else all the time.
[15, NYC, YH33]

(171) ...Mos' a time, I be lookin' at another
picture.
[12, Venice, V-55]

(172) I never be in the fights.
[15, Jets, #742]

(173) ...when I come up down South up here, they
don't understan' mak-- some time I be
sayin'.
[15, N.C., YH33]

These are adverbs which refer to general conditions extending over a period of time, usually indefinite in force.

We also find many be$_2$ examples which seem to express general or extended state of affairs, without any adverb. This is especially frequent with the progressive.

(174) --When the teacher be diggin'--when [he]
be rappin' to me, and shit, and I be high,
and these motherfuckers, they be talkin'
about how France--they just chopped Africa up...
[16, Jets, #667]

(175) Because people that be sellin' reefer tell me...
[16, Jets, #667]

(176) He don't be actin' like them other brothers do...
[16, Cobras, #607]

There are uses which are plainly iterative, where an event occurs habitually; but it is plainly the meaning of the non-stative main verb which conditions this meaning of be$_2$ as opposed to durative, extended meanings. We find no contrast between durative and iterative meanings of be$_2$. Durative meanings freely occur with the progressive with stative verbs and non-stative verbs.

(177) If you wasn't a Jet , they wouldn't let you
be knowin' all their stuff, like....
[12, NYC, #681]

(178) 'cause
You still be makin' money
[12, NYC, #367]

(179) All the guys be hidin' under the house....
[29, Ala., #883]

(180) ...some guys be fightin' [CR question]--
Yeah--you know diff'ent guys from other
corps [plural], they be fightin', and--
uh--a guy'll jump in there to stop it...
[29, N.Y.C., #812]

We also find *be*$_2$ used very frequently with comitative phrases, implying again an indefinite durative sense, or more precisely, a 'state of affairs':

(181) Q. Who? [KC]
A. Niggers that I *be* with.
[16, Jets, #688]

(182) It ain't that much--you know-- people out in Long Island you be around with than it is in New York.
[13, Jets, #605]

(183) ...the guys that...*bes* around the park with us, there's a leader of them.
[15, NYC, YH41]

Thus, we can identify several components of the meaning of *be* which usually coincide: 'general', 'habitual', and 'indefinite' on the one hand; and 'stative' and 'to be in the condition of', on the other. Those who would search for a conjunctive definition might try to specify 'non-temporal' or 'non-finite', which may or may not be equivalent to 'indefinite'. It is curious that these meanings would seem to be "unmarked", although *be*$_2$ seems to be the marked term. The main hope for those who believe in establishing such simple definitions lies in establishing an incompatibility between the invariant *be*$_2$ and adverbs such as *right now*, *right then*, *at that moment*, etc. Attempts to test such sentences as *he be here right now* for grammaticality are indeterminate since intuitions about NNE are not accessible in any simple way (see section 4.5 below). The best that we can hope for at the moment is negative evidence. However, this negative evidence is not forthcoming. We find *be*$_2$ used with an extremely definite temporal adverb *five times* as a counter-example:

(184) ...if he be bad for five times...
[13, T-Birds, #375]

Furthermore, we find two clear examples of *be*$_2$ used to describe an 'instant state' of affairs:

(185) We shake hands. And that *be*$_2$ it.
[36, Ala., #883]

(186) The last guy who be picked, they IT.
[11, T-Birds, #498]

Although there is no adverb here to 'define' the semantics of the situation, it seems to us clear that in (185) *that be*$_2$ *it* at that moment and (for a well-defined period thereafter). (186) seems an even clearer representation of the instant state which comes into being at that moment:

when the guy is picked, he becomes at that moment, IT. Neither the first or second clauses can be described as a-temporal.

Finally, we find one very clear case of the adjoining be with an adverb of instantaneous time.

(187) If he hit me--...
He probably just hit me,'cause he be mad
right then; you know he wouldn't hit me
otherwise.
[15, Oscar Brothers, #584]

It seems to us that no twists or turns or metaphorical interpretations can escape the implications of this last example. The speakers of (185-187) are in no way suspect, or uncertain as NNE vernacular speakers. On the contrary, they are full members of their respective peer groups. There is no indication of idiosyncratic analysis here, as we have with such expressions he can gets hurt. In (185-187), we find the meaning 'to be in the condition of', but not its usual accompaniment--'habitual' or 'general'.[40]

There is also some evidence that be$_2$ does not always carry its full semantic load, whatever that may be. A study of the social and stylistic distribution of be$_2$ reveals a number of facts which are difficult to account for with our present understanding of this form.

The distribution of be$_2$ among various grammatical categories, according to the following element, seems to fit in with the view that 'habitual' or 'general' meaning can be attributed to be$_2$ on the one hand (in some cases more specifically 'iterative') and a 'stative' meaning on the other. We find be$_2$ most frequently before verbs with a progressive suffix, and with relatively very high frequency before comitative phrases. Further studies of such distribution, with close reference to the semantic context, may illuminate the meaning of be$_2$ further. However, there are a number of other facts about the distribution of be$_2$ which are not easily accounted for by semantic arguments.

Person-number distribution of be$_2$. At first glance, the invariant be$_2$ would seem to be independent of the finite alternants of be$_1$--am, is and are. However, the following figures show a very regular and surprising bias in the frequency with which be$_2$ occurs in environments which require SE am, is and are: The figures given are percentages of be against the total, which includes full, contracted, and deleted forms. For the four principal peer groups in single interviews, we have:

	environment of		
	am	*is*	*are*
Thunderbirds	14	07	37
Jets	13	06	29
Cobras	16	15	32
Oscar Brothers	24	00	16

The frequency of *be*$_2$ in the *are* environment is two to five times greater than in the *is* environment. The figures for *am* fall in-between.

It is possible that there are good semantic reasons for this. One would speak of habitual or general behavior of several people more often than of one person, perhaps. There is also the general use of *you* as in *you have to...*. We might also argue that one knows general facts about onself more often than about a third person. Further investigation of this possibility will require us to isolate not only the formal category of person, but also the degree of generality which is intended in each sentence.

There is also the possibility that *be*$_2$, immune to the phonological processes of contraction and deletion, falls into the hole created by the absence of *are* more frequently than into the partial vacuum of *is*. If *be*$_2$ has such a hole-filling tendency, it will provide only part of the explanation for this distribution; for even though the deletion of *are* is much more frequent than the deletion of *is* (see below--up to three times as frequent) this would still not account entirely for the preference of *be*$_2$ for this position. On the face of it, the moderately high frequency of *be*$_2$ in *am* positions would argue against the hole-filling tendency, since *am* is never deleted. But it should also be pointed out that *am* is rarely *expanded* to its full form, and we have noted certain difficulties that NNE speakers have along these lines. Therefore *be*$_2$ may be filling the function of providing emphasis where full forms are not easily available.

Such an analysis is even more persuasive when we remember that the absence of *are* is not the result of a deletion rule, but rather of the contraction rule. Full forms of *are* consist of both [ɑ·] and [ə]--that is, stressed and unstressed, reduced forms. That being the case, *am* environments would favor *be*$_2$ for the same reason that *are* environments favor it--the prevalence of the contraction rule which renders the uncontracted form less familiar and less available. Further evidence given below will support the notion that *are* is removed by the contraction rule alone.

Style shifting of $\underline{be}_2$. More complete data on the distribution of invariant $\underline{be}_2$ is provided by Table 3-20 which shows the four major peer groups in both single and group styles. In addition, Table 3-20 shows figures for single interviews with lames--in this case, combined figures for five isolated pre-adolescents and eight teenagers who are not members of the central peer groups.

It is immediately apparent that the effect we noted from the data on single style, above, does not hold for the group sessions. Furthermore, there is very little use of $\underline{be}_2$ in the group sessions--only a few percent in most cases, and just about at the low level of the is environments. In other words, whatever factor was operating to raise the level of $\underline{be}_2$ in the am and are environments, is simply not operating in the excited and spontaneous interaction of the group sessions.

This is difficult to understand if we consider $\underline{be}_2$ to be a characteristic feature of the NNE vernacular. We have seen case after case where the group sessions show the most regular application of NNE rules--if there is a difference between styles A and B, it is towards a less frequent use of such characteristic NNE rules as deletion of a contracted auxiliary. More data on style shifting with is and are in the next section will confirm this impression.

On the other hand, it is clear that $\underline{be}_2$ is indeed one of the most marked features of NNE. As far as we know, it is not used by any white dialect--it did not occur once in the records of the Inwood group, and we have never encountered it among the hundreds of white speakers in the SSENYC study. Furthermore, we observe that the lames use it somewhat less frequently than the peer group members, again marking it as a central NNE feature.

It further appears that $\underline{be}_2$ is heavily age-graded. We encounter $\underline{be}_2$ in frequent use among pre-adolescents and adolescents in every ghetto area, including Los Angeles, Chicago and Cleveland. But adults rarely use $\underline{be}_2$. We have only a few examples in our adult material, several of which are cited above--and in those few, the speaker is talking about an adolescent experience. This is not the case with many other NNE features, and a number of our adults from the South represent the furthest departure from the dialects with which we are familiar. Whatever context might be appropriate for adults to use $\underline{be}_2$, it has not occurred in our interviews. Yet it is precisely in the same, face-to-face encounter that adolescents use $\underline{be}_2$ most freely, talking seriously and thoughtfully about serious subjects. For the peer group members, $\underline{be}_2$ is an emphatic form used in deliberate speech.

TABLE 3-20

USE OF INVARIANT $\underline{BE}_2$ BY NNE PEER GROUPS IN SINGLE AND GROUP STYLE BY PERSON-NUMBER

		Environments					
	STYLE	am		is		are	
		$\underline{be}_2$	$\underline{be}_1$	$\underline{be}_2$	$\underline{be}_1$	$\underline{be}_2$	$\underline{be}_1$
	A						
Thunderbirds	A	2	60	7	122	3	115
	B	10	64	26	327	47	80
Cobras	A	2	61	1	76	3	94
	B	12	73	39	230	44	90
Jets	A	4	69	6	209	19	211
	B	27	180	30	500	43	105
Oscar Bros.	A	-	40	6	191	3	72
	B	8	25	0	114	10	50
Lames	B	2	52	2	145	7	48

This observation adds a further dimension to the meaning of be$_2$. In dwelling upon a stative condition, be$_2$ lends an abstract, somewhat hypothetical character as well as a general and emphatic one. Indeed, we might refer to 'deliberative' be as well as 'general'.

We have not yet touched upon one formal use of be$_2$ which is most removed from SE: the use of be + ing in the following constructions:

(188) If you bein' bigger than me, I wouldn't say nothin'. [15, Oscar Bros., #584]

(189) ...if you bein' so many times come down to the office have a complaint on you, they kick you out' a project. [15, N.Y.C., YH-41]

It is possible to combine two be$_1$'s in SE, as in you are being good, but it is usually not considered acceptable with an adjective indicating a permanent condition, such as big. In (189), there is no clear SE equivalent. It seems likely that these are cases of

$$be_1+ing - be_2$$

in the underlying structure, where be$_1$ is realized as are, vocalized, reduced and contracted to zero. Then the meaning of (188) and (189) is a peculiar combination of the unmarked meaning of be$_1$, the stative meaning of be$_2$, and the progressive. We may attempt a gloss as 'if you are during that time in the condition of...' This would lead directly to the meaning of 'since' which we find in

(190) ..bein's that you little, they're gonna devantage of you... Bein' as that he's little... [14, Jets, #940]

Note that all these sentences show the deliberate and sober type of discourse cited above as characteristic of be$_2$, although it is of course not confined to such styles. In these quotations, NNE speakers are using their grammar to deal with reasonably abstract matters--it should be evident that the vernacular is not at all confined to the concrete.

3.4.12. Effect of phonological rules upon will. In the course of studying invariant be$_2$, we find many examples which seem to have the force of the future:

(191) Well, if I be the winner, I be glad [13, Jets, #605]

Here the second be might well be from an underlying I'll *be glad*. In this case, it seems more likely than not; similarly in the following instance:

(192) 'Cause you still be makin' money.
[12, N.Y.C., #367]

If indeed there was an underlying *will*, in these and other sentences with *be*, the question arises by what means the *will* is deleted. Do the phonological rules developed in the preceding sections operate upon this member of the auxiliary as well?

First of all, there can be no question about the status of *will* in NNE. Although various forms of *going to* carry most of the burden of the future, there are many situations where *will* is appropriate, and it is freely used in full and contracted form. The emphatic *will* is quite common:

(193) [Do you ever fight over dough?]
Of course. Even though--I know it's the root of all evil, but I *will* fight over it.
[15, Cobras, #496]

(194) Now a girl will get out there--I mean, she's not particularly tryin' to hurt you, but she'll put a hurtin' on you. You know what I mean?
[25, N.Y.C., #866]

In final position, after ellipsis, we typically get *will*.

(195) If I get married again, I will.
[26, N.Y.C., #840]

Will is quite common, even in the future perfect, in the rifting style (see 4.2) of the Bohemian Brothers:

(196) We will have succeeded... [17, Cobras, #648]

We also know that *will* is deleted by the existence of a continuous transition between consonantal *'ll*, a back unrounded velar glide [ɫ̯], and zero. Before *be* we hear many slight traces of the (ɫ) glide, especially in the combination *I('ll)be*.

The complete disappearance of *will* plainly requires rule (3) of the sixteen phonological rules (p. 207) which vocalizes the velar [ɫ], but also rule (7) which deletes the resulting glide. In some cases it is quite plain that an underlying *will* has been removed by this process:

(197) They find out that he was a soldier.
[37, S.C., #833]

There are many other cases where a deleted *will* produces an ambiguous result, since the unmarked present can often stand with a future meaning, and the line between the extended present and the future is not easy to draw. It is also possible to have ambiguity which includes the future and the preterit. In a taped "telephone conversation" between a Chicago teacher and an adolescent girl, the teacher asked the girl if she had asked her mother for her father's name, and the girl answered

(198) [a·fa·nda^{o}t]

To most listeners, this is *I found out*, but in this case it means *I'll find out*. The monophthongization of /aw/ before voiced consonants, combined with the velarization and deletion of *'ll*, leads to this neutralization.

Rules for the deletion of will. The exact position of the vocalization of (ɫ) is not yet clear. In the sixteen rules, the (ɫ) rules are placed directly after the (r) rules for the sake of clarity; clearly they follow the (r) rules, but it is not clear how late they may be placed. It is possible that the (ɫ) vocalization rule is really quite late, for the general -*t*,*d* simplification rule may precede it. Our data is not yet complete on this point, but it appears that the frequency of -*d* deletion in -*ɫd* clusters is closer to the (KD) bench mark than the low level (VD) rule. If that is the case, then -ɫ- at this point is behaving like a consonant, and the (ɫ) vocalization rule will have to follow. This is a particularly clear case where the quantitative evidence of the variable rule bears directly on the question of ordering.

The principal open question concerns whether or not there is a general rule for the deletion of the initial *w*-. Should rule (8) on p.207 be modified to include *w*-as well as *h*? There have been suggestions along this line[37], but for a number of reasons it does not seem to be the case for NNE:

1. Initial *w*- is absent in several members of the auxiliary: *will*, *would*. This may be considered the same item, in its present and past forms, and so we have only one alternant on which to base the rule. *Was* and *were* do not show deletion of *w*- as a rule, although we do have a very few exceptions.

(199) Last time I back in Florida. Yeah.
[39, N.Y.C., #873]

(200) That's where I raised at.
[38, Va., #888]

We also have a number of cases of one Cobra member beginning sentences with *I born...* where *was* is deleted before *b*-. But with these few exceptions, we can say that there is no general rule for deletion of the *w*- in *was* (which is the only representative of *be* in the past in NNE). There are other cases where *was* is deleted, but it is by the same mechanism as that which operates in the *What I mean...* constructions discussed above. on p. 215; (130) is such an example, as well as:

(201) But one of the things that kept me going I didn't like to be beaten. [50, N.Y.C., #849]

2. There is no general rule for deleting glides, which would simplify rule (8), since initial *y*- is clearly not deleted, even when the vowel is reduced and almost gone in *y'know*.

3. It is possible to argue that *was* is an exception to the *w-* deletion rule, motivated by the necessity of preserving the distinction between *was* and *is* in unstressed form. However, it would then be necessary to add the environment of the tense marker (just as in contraction) since the very common weak word *one* does not lose its initial *w* in NNE, although there are other English dialects which do so.

We can conclude then that the *'ll* variant is a dictionary entry in SE as well as NNE, one of the alternant forms of *will*, and it is this abbreviated form which is vocalized and reduced to zero by the contraction rule. Forms with initial *w*- can be heard as alternants of the vocalized [ɨ] form; thus one can say for *I will be here* [a·w^{ə}bihɛ·] or [a·^{ɨ}bihɛ·] or [a·bihɛ·].

There are of course many complex ways of treating the other future form, *is going to* or *gonna* or *am going to*, and these will be discussed in 3.5.2.

3.4.13. *The social and stylistic stratification of the contraction and deletion rules*. In the discussion of the finite forms of *be*$_1$ above, we concentrated upon the central peer groups which best exemplify the grammar of NNE. In Table 3-21 more complete data is given on the social and stylistic stratification of the operation of the contraction and deletion rules. In addition to the basic peer groups, we have separated two groups of lames--a pre-adolescent set and a group of teen-agers. The five pre-adolescents are much more clearly isolated than the older boys, as noted above. The teen-age lames are those in the Jet territory who are not members of the club in any way, and have no knowledge of it, but they may be members of smaller hang-out groups on their block.

TABLE 3-

SOCIAL AND STYLISTIC STRATIFICATION IN THE USE OF THE CONTRACTION AND DELETION RULES IN NNE

		is		are	
	STYLE	C	D	C	D
T-Birds	A	.59	.70	.96	.90
	B	.72	.50	.92	.90
Cobras	A	.97	.66	.89	.81
	B	.76	.58	.98	.89
Jets	A	.74	.58	.91	.88
	B	.66	.45	.93	.94
Oscar Bros.	A	.72	.61	.96	.90
	B	.60	.52	1.00	.85
Lames--PA	B	.75	.15	.77	.40
Lames--TA	B	.63	.30	.90	.79
Inwood	A	.89	.00	.96	.02
	B	.75	.00	.78	.03
Adults					
Middle cl.	A	.33	.00	.50	.00
	B	.33	.00	.59	.00
Working cl. Upper No.	A	.65	.31	1.00	.84
	B	.56	.13	1.00	.00
Upper So.	A	.54	.17	1.00	.67
	B	.39	.05	.91	.28
Lower No.	A	.47	.38	.97	.41
	B	.45	.22	.99	.46
Lower So.	A	.77	.48	1.00	.52
	B	.49	.20	.98	.88

In addition, Table 3-21 shows the full break-down of the adult sample into middle class (Northern), and upper and lower working class (each divided into Northern and Southern sub-groups). Although this represents only one quarter of our adult sample, and the various cells are often reduced to only four or five members, the pattern which emerges is quite clear.

The data is given as values of φ for the rules operating, rather than in terms of the percentages of the surface forms observed. For *is* this represents the contraction rule operating first, then the deletion rule acting upon the pool of contracted forms, just as in Tables 3-14 and 3-15. This should produce a sharper picture than simple observations of surface forms, and bring us closer to the social stratification of the grammar itself.

For *are*, we observe first a reduction rule which gives us [ə] from [ɑ·]--a distinction we do not observe in our studies of *is*. The next step unfortunately combines the operation of two rules--deletion of postvocalic schwa and contraction, which we cannot separate.

We first observe that the contraction rule operates upon *is* in a fairly uniform manner among the peer groups, ranging from .60 to .75. The Thunderbirds, as we observed before, use quite a few full forms in group sessions--whether this is a characteristic of younger speakers or not we cannot say. The lames use the contraction rule in the same way, and so does the Inwood group. The most marked difference in the use of the contraction rule is seen in the middle class speakers, who use it only half as much: it is clear that the liberal use of free forms is a mark of middle class speakers in this community. There is some variation among the working-class speakers, but none use as little contraction as the middle class.

In all groups, except the T-Birds, we see that there is less use of the contraction rule in group sessions or casual speech than in single style; the middle class speakers remain at the same low level in both styles.

There is much sharper stratification in the use of the deletion rule for *is*. All groups show stylistic stratification here, using deletion much more in style A (except for the middle class, which does not use it at all). The effect is much more marked among adults than among the youth, and here we see more regular stratification among the members of the working class adult groups: the lower sections use more deletion than the upper ones. There is no obvious difference between north and south.

The use of the deletion rule clearly shows how different the lames are from the peer group members--much more so than the phonological variables studied in 3.1 or the -t,d simplification rule. The pre-adolescent lames use the deletion rule very little, φ of .15, and the adolescent lames are considerably below any of the peer group members. Of course the white Inwood groups do not use the deletion rule at all.

Turning to the rules for are, we see only two sub-groups which use any degree of unreduced forms. The middle class is sharply distinguished from the others in this respect, and the pre-adolescent lames also use a fair number. A corresponding difference can be seen in deletion and contraction of the reduced form. Again the middle class does not do this at all, and the lames less than the peer group members. Note that this rule does operate at a very low level for the white Inwood groups: they are capable of deleting the postvocalic schwa and then contracting, while they cannot delete a lone [z]. This confirms the less systematic remarks we made on the use of these rules among white Southerners, and shows that our analysis of the removal of are is in the right direction.

Finally, it is interesting to note a sharp difference between peer group members and adults in their use of the deletion-and-contraction rules for are. There is no clear style shift for the youth at all, but adults (with the exception of one sub-group) show a very sharp difference. The upper section of the Northern working class is most extreme in this respect. In casual speech, the pattern is that of the adolescent peer groups; in careful speech, it is closer to the middle class--are was never removed entirely.

The regular style shift in the use of the deletion rule for is is much clearer here than it would be in observations of surface forms. In our various observations of the speech of the peer group members so far, we have not detected very much regular style shifting in speech--it is only in the most formal styles that the phonological variables such as (r) begin to shift. This analysis of the contraction and deletion of is is plainly much closer to the vernacular patterns which are important to members. We have remarked in other publications (Weinreich, Labov and Herzog 1968) "in a language serving a complex (i.e., real) community, it is absence of structured heterogeneity that would be dysfunctional"(p.101). The functioning of NNE can be seen in this table, and the way in which peer group members exhibit a "nativelike command of heterogeneous structures".

TABLE 3-22

DEVELOPMENT OF PHONOLOGICAL CONDITIONING OF DELETION OF CONTRACTED *is* AMONG FIVE NEGRO GROUPS IN SOUTH CENTRAL HARLEM

		Percentages of contracted *is* deleted				
		T-Birds	Cobras	Jets	Oscar Bros.	Adults
	Age:	[10-12]	[12-15]	[12-16]	[16-18]	[20-]
Individual interviews						
After pronouns	__K	52	72	61	18	22
	__V	56	65	62	24	10
After other noun phrases	__K	37	46	58	67	43
	__V	21	25	19	00	06
Group sessions[1]						
After pronouns	__K	67	76	58	68	25
	__V	56	80	62	50	28
After other noun phrases	__K	75	67	40	54	42
	__V	67	80	36	00	13

[1] For adults, casual speech within individual interviews

Development of phonological conditioning: the effect of a following vowel. It has appeared at many points in this investigation that the most characteristically phonological constraint is that of a following vowel. However, the previous discussion, based on Table 3-14, we were concerned with the preceding vowel vs. a preceding consonant. In Table 3-22 above, we can observe the gradual development with age the phonological effect of a following vowel upon the deletion rule. We have isolated first the strong effect of a preceding pronoun, and examined the effect of a following vowel with and without a preceding pronoun. With the younger groups, there is no clear-cut pattern at all--if anything, the effect of a following vowel is to encourage deletion. But the older peer group, the Oscar Brothers, shows the effect of a vowel after noun phrases, and the adults show an even more general effect of this phonological feature. The gradual phonologization of these P-rules--the introduction of more and more phonological conditioning--seems to be a regular development within the NNE speech community.

The steady growth of phonological conditioning is apparently the result of continued contact between NNE and SE, as well as other dialects. We can hardly refer to this influence as dialect mixture, for it represents a systematic change in the rule-structure of NNE. It is quite possible that the adult speaker re-interprets many of the NNE features which are used in adolescence, within a larger framework which allows him to reconstruct a more general system. Here we have to be circumspect, because it seems generally agreed that adults have lost most of their ability to reconstruct underlying rules. The kind of stylistic use of deletion which we see in Table 3-21 is conceivable within this model of adult language; but the structural re-organization implied by Table 3-22 is not as consistent with previous conceptions. Note that the effect of a following vowel is a variable constraint which is not a part of the rule among pre-adolescents. It gradually emerges among late adolescents, and then assumes considerable importance for adults. Such a shift of the position of a variable constraint may represent just that type of restructuring which is open to adults, and this process may indeed play a part in the mechanism of linguistic change within the community.

3.5 The verbal paradigm

In the extensive discussion of 3.4, we reviewed the effects of sixteen phonological rules upon is and other important elements of the auxiliary and verbal system of NNE. In this section, we will take an over-view of the verbal paradigm, introducing some new data on person-number agreement and the use of the negative ain't in the preterit. We will consider the regular verb in various tenses, positive and negative, the irregularities of perfects and preterits, and the modal system. There are many open questions in this area, and we will attempt to confine the discussion to the points where there is solid evidence, the results of our grammatical searching. The material presented in this section is therefore limited to those conclusions which seem reasonably well founded at the moment, and which appear to be useful for those engaged in teaching SE to NNE speakers. It is particularly important to avoid idiosyncratic and speculative notions in this area, where there are many unsolved semantic problems, since at this time linguists cannot claim to have made very much progress in semantics, even with regard to SE. We wish to avoid the imposition of new and unproved speculations upon the educational system in ghetto areas, which is already overburdened with programs based on very little evidence.

3.5.1. Person-number agreement. Evidence presented in 3.3, principally in Table 3-10, leads us to the inescapable conclusion that there is no third-singular marker in the NNE regular verb. All person-number forms are equivalent, and there is no rule which singles out the third-singular. English deviates from the normal pattern in having a special mark in this position, in any case, since it is overwhelmingly the unmarked position in language after language. The third singular is most frequently the zero position in an inflectional language, and the SE -s stands out strikingly when we begin to look into language universals.

There are a number of frequent verbs and auxiliaries in SE which also show this -s in some irregular combination: have ~ has, do ~ does, was ~ were, say ~ says. None of these show person-number agreement in NNE. Table 3-23 gives some limited data on have and do, want and say, which we examined for agreement in the speech of 33 peer group members and several other contrasting groups. In each case, the actual numbers of instances are given of the -s form and the zero form. Have and do are given for the third-singular contexts and for all other contexts; want and say for third-singular alone. We find that have behaves in the same way whether it is auxiliary, quasi-modal (hafta) or main verb, positive or negative. However, do is quite different in the positive and

TABLE 3-23

PERSON-NUMBER AGREEMENT OF HAVE, DO, WANT, SAY FOR NNE PEER GROUP MEMBERS AND OTHER GROUPS

		have		do		don't		want	say
		+3s	-3s	+3s	-3s	+3s	-3s	+3s	+3s
Club members (31)	-s:	5	0	0	0	2	0	2	1
	Ø:	21	44	20	44	61	163	16	26
Oscar Brothers (3)	-s:	6	0	2	1	7	0	3	3
	Ø:	10	41	4	20	11	83	0	9
Lames (10)	-s:	6	0	1	0	10	0	7	0
	Ø:	4	29	8	8	18	107	4	12
Inwood (8)	-s:	26	0	13	0	8	0	6	19
	Ø:	0	23	0	40	17	74	2	0

TABLE 3-24

PERSON-NUMBER AGREEMENT FOR WAS AND WASN'T FOR NNE PEER GROUP MEMBERS AND OTHER GROUPS

		1st sing.		3rd sing.		elsewhere	
		Aux	Verb	Aux	Verb	Aux	Verb
Club members (31)	was:	40	54	54	117	54	51
	were:	2	2	13	5	9	8
Oscar Brothers (3)	was:	11	13	8	32	2	3
	were:	0	0	0	0	7	6
Lames (10)	was:	13	19	28	20	3	5
	were:	1	0	0	0	15	4
Inwood (8)	was:	11	24	25	76	0	4
	were:	0	0	0	0	21	8

the negative, so both forms are shown. Again, *do* as auxiliary support and as main verb seems to behave in the same way--there is no obvious sign of grammatical conditioning. It is immediately apparent that *have*, ***does*** **and** *don't* are the NNE forms. There are a small number of *has* forms in the third singular, a few *doesn'ts*, and no cases of *do*. There are no hyper-correct -*s* forms in the -3s environments. Similarly, the predominant forms for *want* and *say* have no -*s*. *Want* was included because of its status as a quasi-modal, as representative of the number of verbs without auxiliary properties which appear frequently as concatenative verbs with the same subject as the following verb: these have a special position in colloquial syntax, as discussed in 3.5 below. We are concerned here with *wanna*, parallel to *gonna*, where the nasal appears as flap or simple [n].

The Oscar Brothers appears here separately because the members were clearly different from the main body of Jets, Cobras, Aces and Thunderbirds. The Oscar Brothers are not only older, and closer to adult patterns, but they are also not a named group in the sense that the others are; as noted in chapter II, they are an informal hang out group of a fairly individualistic character, although they are the dominant group in 1390 5th Ave. within their age range. Here we observe a fair number of *has* forms, some *doesn'ts*, and *wants to*. It is worth noting that the -*s* forms do not enter in any regular way; there is a great deal of individual differences in the use of -*s*, as in any form of correction in late adolescence. In most of these cases, one member provides the bulk of the -*s* forms.

Ten lames were included in this study. In some ways, they are further towards SE than the Oscar Brothers, since the predominant form in the +3s contexts is *has*, and there is evidence all along the line of SE influence. *Do* and *say* are still used in +3s contexts, however.

The white Inwood groups show a very regular pattern which follows the WNS paradigm as we have known it in other situations. There is perfect agreement in *has* ~ *have*, *does* ~ *do*, *says* ~ *say*. The quasi-modal *wanna* shows some fluctuation. But the major deviation from regular person-number agreement is with *doesn't* ~ *don't*, where we see that the Inwood group has the same percentage of non-standard *don't* as the lames and the Oscar Brothers. Therefore in this respect, these two groups were simply following the WNS pattern, and their use of *don't* cannot be taken as based on the NNE pattern. *Do*, *have* and *say* are the characteristic NNE forms, and there is no doubt that they carry a strong sociolinguistic mark.

The adults fall rather sharply into two different types, those who followed the NNE pattern and those who did not. There were several from the upper section of the working class, raised in the North, who used person-number agreement in the same way as SE does, and of course the middle class speakers followed this pattern. But there were also several from other sub-groups of the working class, who are not necessarily SE speakers in other ways, who followed the SE pattern here. One gets the impression that these irregular verbs are a matter of considerable social concern, and speakers are capable of using fairly regular agreement with _have_, _does_, etc., even when they do not use third-singular -_s_ with the regular verb. On the whole, however, there is a fairly good correlation between the use of the deletion rule for _is_ (and to a certain extent, the contraction-deletion combination for _are_) and the pattern of the irregular verbs. Among the adults raised in the South, we find many who preserve the NNE pattern almost perfectly--again there is the tendency for the alternating vowel of _do_ ~ _does_ to help maintain the regularity. For a natural NNE speaker, the form _does_ is heavily marked. Further research into the correlations between these variables for individual speakers may give us a clearer understanding of the best route to use in teaching the SE pattern.

Person-number agreement of was. Table 3-24 shows the corresponding pattern for _was_. Our present information shows that this verb behaves the same way in the positive and the negative, and the overwhelming pattern is that _was_ is the NNE form. The club members show a small amount of cross-over, with a moderate number of _were_ forms in the singular. These may represent the operation of the deletion rule, acting upon the [z] of [wz], or even upon a lone [z] if the initial [w] should be elided. There is no greater concentration of _were_ in the "elsewhere" category than in the 1s and 3s positions. On the whole, it is clear that there is no agreement for _was_. The auxiliary and the main verb do not seem to behave any differently--at laast as far as this data carries us.

The Oscar Brothers are clearly moving in the direction of SE, and the lames are heavily influenced by the SE pattern. This is apparent in the higher concentration of _were_ in the appropriate SE slot, and in the absence of _were_ in the 1s and 3s environments. Finally, we see that the white Inwood group follows the SE pattern quite well, with some disagreement of the main verb: we find a moderate number of cases of _they was_, but no _I were_, again in conformity with what we know about WNS patterns. Note that this also shows that the Oscar Brothers and the lames are leaning in the direction of WNS and depart from NNE more than one would think if they were simply compared to SE speakers.

We conclude that there is no entry in the NNE dictionary for *has*, *does*, *says* or *were*: if the NNE speaker is to learn them, they must be imported from "outside" in some sense. More generally, we note that person-number agreement exists in NNE for only one verb: *be*$_1$, which differentiates *am*, *is* and *are* in the same way that SE does, as shown in Table 3-18.

3.5.2. *The regular verb*. It was shown in section 3.3.5 that there is no basis for positing a third singular *-s* for the regular verb, so that the present is completely unmarked in NNE. On the other hand, the burden of 3.2 was that there is an *-ed* suffix for the regular verb. Furthermore, we have noted that the past tense category is well supported in general, although there is considerable variation in the specific forms used in irregular verbs.(See 3.5.4 below). The basic pattern then is quite regular:

I work	you work	he work	they work
I worked	you worked	he worked	they worked

Whether or not the *-ed* ending also holds for the present perfect is difficult to say at present, because the data on *have...ed* is simply too sparse, and the position of this tense in NNE is not at all secure.

The future. NNE has both *will* and *going to* for the expression of the future, and of course the unmarked present form is frequently used as well. In 3.4 above, we reviewed the effect of the phonological rules upon *will*, but there can be no question that the underlying form is quite secure in NNE. Various forms of *going to* are more common, and certain routes in the morphological condensation of this form are highly characteristic of NNE.

The form *is going to* is subject to the same processes of reduction, contraction and deletion which lead to the elimination of *is* in the surface forms in other environments. But the frequency before *going to* or *gonna* is exceptionally high, verging on the status of a semi-categorical rule. Once the rule becomes a constant, as it is for many speakers, it is quite likely that there will be a re-analysis of *gonna* as a lexical item which carries the tense marker itself. This has happened with several other items in both WNS and NNE, such as *better* and *got to*. The deletion of *'d* before *better*, and of *'ve* or *'s* before *got to* has reached a semi-categorical status (indicated by * in the rule) with the result that there may be lexical change and even an alteration in the pattern of the auxiliary. There is no question of *gonna* or *better* taking on the formal properties of an auxiliary in yes-no questions or tags, but in several respects these forms become quasi-modals.

Semantically, *gonna* fits in with *better* and *gotta* in that they are sentence modifiers; they follow the modals in transposing to the head of the sentence with a dummy *it* subject:

(202) He better go → It better be that he goes.
(203) He may go → It may be that he goes.
(204) He gonna go → It gonna be that he go(es).

There are many cases of such lexicalization occurring in NNE, and it is important to distinguish productive (and reversible) phonological processes from those which have operated historically, but are now blocked by lexical change. In the case of *gonna*, there remain on hand in NNE a vast number of intermediate morphological forms which may tell the NNE speaker about an underlying relation between *going to* and *gonna*. The same argument applies to *are going to* as *is going to*, but it is even clearer in the case of *am going to*, and we will consider the morphological condensation of *am going to* below.

Routes for the condensation of am going to. The study of morphological condensation has never been carried very far by linguists, partly because of the difficulty of studying the phonetics of actual speech. In the case of *am going to*, we can distinguish many of the same phonetic processes of assimilation which can be observed in long range studies of the evolution of a language.

(205)	[1]	am going to æmgoʷɪŋtu	
	[2]	əmgoʷɨŋtə	vowel reduction
	[3]	əmgoɨŋtə	simplification of triphthongs
	[4]	əmgoɨntə	assimilation of nasal to -t
	[5]	əmgoɨŋ̩ə	assimilation of -t to nasal flap
	[6]	əmgon̩ə	monophthongization
	[7]	əmgonə	reduction of flap to nasal
	[8]	mgonə	contraction

At this point, we are still within standard colloquial English. There are now two major routes to be followed in further contraction. The one that is favored by SE speakers involves the reduction of the [o] to [ə]; the unit thus becomes a weak word. It should be noted that there is no process available, in either WNS or NNE, which can remove the nasal [m]: in one form or another, this nasal will remain.

We will refer to this option as the reduction route, and follow it through two sub-paths. The first is characteristic of SE and WNS: the assimilation of the [m] to the point of articulation of the following [g].

(206)	[9]	mgənə	vowel reduction
	[10]	ŋgənə	nasal assimilation
	[11]	ŋgnə	ə-ellision
	[12]	ŋnə	ŋg simplification

Note that this last step is a normal and frequent process still operating in the evolution of English. At this point no further reduction is possible; all of the forms used up to this point are actual intermediate forms encountered, and since many of the orderings here can be reversed, there are other intermediates such as [ŋgonə]. But for SE or WNS, it is not possible to say [ŋə] or [nə]. To the best of our knowledge there is no future form I'na go.

The NNE subpath on the reduction route is the reverse of that shown above. Instead of the nasal assimilating to the following stop, we get the assimilation of the stop to the nasal--unusual in English, but the rule in other languages such as Korean.

(207)	[9']	*mmənə	assimilation of stop to nasal
	[10']	mənə	simplification of geminates
	[11']	mnə	ə-ellision
	[12']	*mmə	assimilation of nasal to preceding nasal
	[13']	mə	simplification of geminates

Note that all of these rules except [9'] are necessary and productive in other areas of English phonology. All of these forms are actually used in NNE, except those marked * (because the simplification of geminates is automatic and immediate in allegro speech). Thus [10'] is very common and highly marked as NNE: I'mana go, I'mana tell you like it is. It is [13'], however, which is most common among our speakers.

(208) I'm-a shoot you. [15, N.Y.C., YH-31]

If it were not for the presence of these intermediate forms, the derivation of I'm-a from I am going to would seem rather distant and unconvincing, but all of these are available to the analyst as well as the native speaker.

The other route which is characteristic of NNE, and not taken by WNS, is the vowel nasalization route. Thus we have by a different ordering of some of the processes noted above:

(209)	[2']	əmgo^{W}ŋtə	ellision of unstressed vowel
	[3']	əmgo^{W}ntə	nasal assimilation
	[4']	əmgo^{W}n̩ə	assimilation of -t to nasal flap
	[5']	əmgo^{W}nə	reduction of flap
	[6']	mgo^{W}n	contraction and ellision of ə
	[7']	mgɔ̃n	nasalization of vowel, lowering
	[8']	mgɔ̃·	loss of nasal, compensatory lengthening

The same processes operate upon is going to, yielding [gɔ̃·] without a preceding nasal: He gon' do it; this characteristic sound of NNE is not easy to express in dialect literature. All of these forms are heard, but in addition to [2'-8'], we also have the option of invoking the same processes as in [9'..] under (207):

(210)	[9"]	*mmɔ̃·	assimilation of stop to nasal
	[10"]	mɔ̃·	simplification of geminates

Perhaps [10"] is the most marked NNE features among adults, and it is used affectively in many tense situations. On the other hand, the route marked by (207) is perhaps more characteristic of younger speakers.

Finally, it should be noted that a different ordering of these rules will reduce the first vowel instead of the second, yielding a rising instead of a falling diphthong.

(211)	[1"]	go^{W}ɪn	
	[2"]	gəwɪn	rising diphthong
	[3"]	gwɪn	ə-ellision

We do get (211-3") occasionally from some speakers with a strong Southern background, but we do not get the equivalent with long i, usually spelled gwine, which we hear in the Caribbean. Of course (211) does not as a rule occur with I'm.

This long series of morphological alternates illustrates the rich variety of dialect forms available within NNE itself, and gives some indication of the ways in which NNE can differ in its rules from SE on very particular points.

The perfect and past perfect. In 3.4.10, we discussed in some detail the situation of NNE have, which is in some senses quite marginal. Abstractly, we would have no hesitation in positing an underlying have, but there is evidence to show that native speakers do not have this readily available at all times. At times, when an SE speaker would unhesitatingly use have, we find other members of the verbal paradigm appearing, and not always the same ones.

(212) I was been in Detroit. [10, T-Birds, #498][41]

As far as the past perfect is concerned, there is no such variation. Pre-adolescent and pre-pre-adolescent speakers use the past perfect readily, with appropriate semantic force.

(213) [How did the fight start?]
I had came over... [8, T-Birds, #933]

There is little basis in our current material to comment on the progressive and its combination with various tenses. We have noted in 3.4 that is and are are more frequently deleted when they occur in progressive constructions than otherwise--that is, the -ing suffix carries the principal load. There are many interesting problems in studying the development of complex forms, but as far as the basic sentence structure is concerned, NNE use of the progressive seems to be quite comparable to SE.

The passive in colloquial English is primarily the got passive, and NNE is no exception. Again, many interesting problems arise when syntax is complicated by several converging factors, and it is true that there are restrictions on the got passive which are not yet well understood. There are some cases where the is passive seems required:

(214) It's split up. [16, Cobras, #515]

(215) It's puffed up. [14, Jets, #526]

(216) It's jacked up. [17, Oscar Bros., #549]

Perhaps these and many similar examples must remain unrelated to the passive, but it seems that they do embody the formal machinery and semantics of passive constructions. In any case, the got passive is predominant, and is used regularly in complex constructions where the subject is acted upon.

(217) He was gonna get put out the club.
[10, T-Birds, #465]

(218) I never had got tol' on. [14, Jets, #527]

3.5.3. Negative forms. Along with the positive forms of the regular verb, we have some characteristic negative forms which mark the NNE paradigm. It was noted above that the normal form of the present negative is don't, not doesn't. For the negative of am, is and are--that is, be_1, the most usual form is of course ain't.

(219) It ain't my stick; it ain't my stick. [14, Jets, #940]

We also have isn't occasionally, 's not, and more frequently, Ø + not--see examples (33-34) and (62-64) in 3.4. We can get the following kind of intimate variation of ain't and 'm not:

(220) I ain't gonna tell you no more, I'm not gonna tell you. [15, Jets, #572]

Historically, ain't developed out of hasn't as well as isn't and aren't (and amn't), and it still functions as the negative of have in NNE.

(221) Well no, she ain't had no kind of nobody to bring her up.[42] [48, N.C., #232]

In these respects, NNE follows WNS. But one way in which NNE departs from WNS in the negative is to use ain't for didn't:

(222) I ain't see the fight; and I ain't hear the fight. [13, Jets, #605]

(223) "I ain't git but a little bit." [15, Cobras, #489]

(224) ...so I told'im I ain't pull it. [15, Lame, #623]

However, ain't is not used alone for the negative in the past tense; didn't is also used, with roughly equal frequency. Again, it is possible to have the two alternate in intimate variation, within the same sentence:

(225) Well, he didn't do nothin' much, and I ain't neither. [12, T-Birds, #365]

This situation is typical of many cases of variation within NNE where those who search for a homogeneous, invariant dialect will choose one of the variants as the original, and the other as an importation from standard English. The judgments are plainly determined in advance, for the one which resembles SE will obviously be rejected--didn't in this case. We therefore receive reports that the paradigm of NNE has the negative past as ain't + Verb, with no mention made of didn't. As we shall see, adults use didn't primarily, and make very little use of ain't, so it is natural to assume that the older speakers get, the more SE *didn't* they import into their speech, diluting the original pure NNE. It should follow that as we go to earlier and earlier stages in the life history of the speaker, the more *ain't* we should find. If there is a regular progression with the younger speakers using more and more *ain't*, then it would follow that there is such a homogeneous dialect in the background, at least as a useful abstraction.

Because we knew that adults rarely use *ain't*, we also assumed that pre-adolescents use more *ain't* than older boys. However, a careful and accountable examination of the data shows that this is not the case. Table 3-25 shows the use of *ain't* by the major peer groups, lames and the Inwood groups. It is certainly not the case that the pre-adolescent T-Birds use more *ain't*; on the contrary, they begin with one third *ain't* in both group and single style. The adolescent peer groups use 50^{o}/o *ain't*--the Cobras, the Jets, and the older Oscar Brothers, who we have seen approximate the adult model on many other features.

TABLE 3-25

COMPARATIVE USE OF *AIN'T* AND *DIDN'T* IN THE PAST FOR NNE PEER GROUPS AND OTHERS

		instances in the preterit of		
		ain't	*didn't*	*^{o}/o ain't*
T-Birds (12)	Style A	8	17	32
	B	11	23	32
Cobras (16)	A	38	44	46
	B	8	10	45
Jets (32)	A	29	42	41
	B	60	64	48
Oscar Bros. (4)	A	20	20	50
	B	19	26	40
Lames (10)	B	10	33	23
Inwood (8)	A	1	22	04
	B	0	37	00

( ) indicates no. subjs. in grammatical searching

The development of ain't in the preterit parallels quite closely the observations we made of be_2 on Table 3-20. Here we see a vernacular feature becoming stronger with age, and reaching its fullest use in late adolescence. This is characteristic of two of the most heavily marked features of NNE, which are rarely used by adults, and the implication is that this dialect is not the property of very young children. On the contrary, it emerges in its most complete forms among the adolescent peer groups which exemplify the vernacular culture (see 4.1). We do not deny that there are undoubtedly some features of NNE which are strongest in young children, but there is no question that be_2 is at the heart of NNE. It is one of the few grammatical features which have no corresponding form in any of the white dialects we have been studying.

The basic paradigm of the regular verb would then take the following form:

$$\begin{array}{ll}
\text{he work} & \text{he don't}\rightarrow\text{'on' work} \\[1ex]
\text{he worked} & \text{he}\begin{Bmatrix}\text{ain't}\\ \text{didn't}\end{Bmatrix}\text{work} \\[1ex]
\text{he}\begin{Bmatrix}\text{will}\rightarrow\text{'ll}\rightarrow\emptyset\\ \text{is going to}\end{Bmatrix}\text{work} & \text{he}\begin{Bmatrix}\text{won't}\\ \text{ain't gonna}\end{Bmatrix}\text{work} \\
\quad\quad\rightarrow\text{gonna} & \quad\quad\quad\quad\rightarrow\text{gon'} \\
\quad\quad\rightarrow\text{gon'} &
\end{array}$$

This paradigm seems a little complex, but the bewildering variety of surface forms of NNE is only barely suggested here. Note that don't can lose its initial consonant as well as its final cluster, yielding a simple nasal vowel [ɔ̃·] as opposed to the [gɔ̃·] of the future. Actually a paradigm is a poor substitute for the ordered set of rules which carry us from the underlying to the surface forms, and all of the areas delineated here need further investigation before such rules can be written.

3.5.4. The irregular past. Formally, the past is truly irregular for NNE. Although the category of the past is well established, the particular shape of the irregular past forms shows a wide range of variation. A tabulation of the many irregular variants which we have encountered is hardly enlightening, though eventually a careful study of these may show system where none appears at the moment. We find many instances, of course, of simple generalization of a minor pattern to one more common. Brought is thus shifted to brung in a great many cases. Know and grow and fly take on preterits knowed and growed and flied. Sit has a preterit sitted. I ran shifts to I runned. But we do not mean to imply that these are regular patterns, or that the regularized alternants are NNE features. For one thing, NNE has inherited a great deal of the unresolved fluctuation in English dialects which has been current since the four principal parts of Old English were reduced to three in varying ways. The perfect forms do not seem to be clearly distinct in NNE from the preterit forms; perhaps this is an exaggeration, but as we look through the records of irregular preterits we find Have you ever saw; He hadn't seed; She had swam out; We had ran down; She had came over; I had threw up; and many instances of went as a perfect: I said they coulda have went; when any of the fellas had went, etc. We also have frequently I had came.

In all of the discussions of grammatical problems in this report so far, we have attempted to find general principles of interest to linguists and of possible value to teachers of English. However, in the case of the irregular preterits and perfects, we have no positive contribution to offer as yet. The fact that the pattern resists patterning may be of interest in itself.

3.5.5. Transfer of finite forms to non-finite positions. In the discussion of Hyper-Z and Hyper-D we introduced a number of examples of -s, and a few of -ed being transferred to inappropriate positions, where no tense marker is normally present in English grammar. We need not take this data as signifying only a weakness in the speakers' grasp of the category concerned. We find a number of instances of NNE speakers violating the general rules which place do for support of the tense marker or which assign a tense marker such as -ed only in finite clauses. We frequently find cases where NNE speakers have given do-support in infinitive clauses.

(226) And I have seen the cop came up to the house and told him don't he whip this child...because the way you whip is brutality. [50, N.C., #816]

This quotation seems to blend direct quotation with indirect, and that may account for the don't in place of not. But we also have cases such as

(227) ...to don't throw bottles and rocks. [11, N.Y.C., #389]

(228) I jus'happen' to wen' over there. [repeated] [37, S.C., #833]

There is no question about NNE speakers' competence with the meaning and appropriate use of went, even if they do not distinguish perfect and preterit. The same is true of had:

(229) 'Cause I was supposed to had had it done long time ago. [laughter] [17, Oscar Bros., #484]

This being the case, we must be somewhat cautious about drawing conclusions from such hyper-forms. The problem may not relate to the firmness with which the morphological form is grasped in NNE, but rather with the rules for the placement (and neutralization) of the tense marker. The following cases would be considered hyper-D unless we took this into account:

(230) She just stood there and let him picked on her. [12, Lame, #681]

(231) ...wouldna let him did nothin'. [16, Cobras, #607]

These quotations tell us nothing about did, but about the rules for placing did. They do not reflect regular variation in NNE--these are rare instances compared to tens of thousands of accurate tense placement, but they may be symptomatic of certain weak points in NNE rules which remain to be isolated. On the other hand, the following example, consistent with the trend noted in 3.4, does show systematic difficulty in locating full forms of have:

(232) I didn't drink wine in a long time. [16, Cobras, #518]

Further, the following quotation shows an irregular form of the preterit which is quite free of any flaw or check in the semantics or the formal structure of the language:

(233) We did went to school. [15, Cobras, #566]

We must distinguish between three types of irregular patterns, accordingly.

a. Isolated cases of deviations from a regular pattern, but which are not the kinds of deviations found in other dialects (230-231).

b. Irregularities in the selection of items for a semantic category which is itself rarely used (232).

c. Irregular fluctuation of lexical choices without any immediate flaw in communication. (233).

Although the last type of irregularity is consistent with a smoothly functioning vernacular, it is possibly the most serious for those who wish to teach the alternate forms consistent with SE. Types a and b may go unnoticed by many listeners, who misunderstand the sentence or do not perceive the distinction. But type c uses categories which have long since been assigned their sociolinguistic value, which are well known, and well understood. The expression we had came over communicates perfectly across dialects; it communicates non-cognitive meanings as well--too well for those who adopt SE as an absolute standard of educational achievement.

Irregularities of type a are of particular interest to linguists because they indicate that the speakers of the language may be making a new and independent analysis of the grammatical structure. It may be a faulty analysis, and eventually fail, but it is a product of the speakers' linguistic intuition--the same mechanism which enables a child to learn language so rapidly in his early years. Examples (230) and (231) take on a new aspect when we find other cases with let and a clearly marked preterit form following:

(234) He woulda let 'em fought. [17, Oscar Bros., #593]
He woulda probably let 'em fought.

This misplacement of the tense marker follows a verb which is unusual in two respects. (1) It takes a bare infinitive, similar in this respect only to make. (2) It is used initially as a fixed particle without other clear verbal properties in Let's go... We cannot give a full logical argument for the shift of tense marker from would to let to fight, but the following discussion of modals will show how an analogous process has indeed taken place in NNE.

3.5.6. The modals. There are two aspects of the modal system which mark NNE as particularly different from SE. One is a fairly straightfoward matter concerning can and could. The two are equivalent as far as our NNE speakers are concerned.

(235) He thought he can beat me. [11, N.Y.C., #393]

(236) They'll teach you what they could. [15, Cobras, #429]

These are typical of many such cases which show conclusively that NNE speakers do not distinguish between the two. But we need not think that this is unusual, because WNS speakers in New York City show the same trait.

Double modals. Throughout Southern English there is a pervasive pattern of "double modals" which is not possible in Northern dialects. From the observations of white Southern linguists, in the South, we have[43]

(237) If you can find that cancelled check, I may can go out there and get it.

(238) [I'd like to take that machinery in there and play around with it to see where to put it.]
You might ought to do that.

The last example, said by a dentist to his laboratory technician, is said to be equivalent to *might should*. *May can* is equivalent to Northern *may be able to*. There are many facets of this use of double modals which remain unexplored, in white Southern speech and in NNE. Formally, they violate a simple rule of SE that one modal does not follow another. Semantically they pose many problems of interpretation. In any case, we find that NNE differs from white Southern English in just the ways that we have come to expect--by a generalization and further extension of possibilities that are already present.

Another linguist raised in Jackson, Miss., reports to us that *may can* and *may could* are acceptable colloquial style; that *might* is coupled with *could (have)*, *can*, *would (have)* and *ought to*; that *must(a)*, *ought(a)* and *supposed(a)* can precede *could*; and *useta* can precede *could* or *would*. Any of these are negativized by adding *-n't* to the second modal. Furthermore, *did useta* is possible (as it is for many Northern whites). But *must don't* and *might don't* are marked as NNE only. In a recent communication, we learn that *might better* is natural and frequent.[44]

One of the first things that a linguist would like to know about double modals is whether yes-no questions can be formed, and tag questions; and if so, how? We have been unable to obtain any information from native speakers of Southern dialects on this point. Their intuitions do not supply the data. **Might he better?* is not possible; it turns into *Hadn't he better?*, at least in self-elicitation. It is possible that questions simply are not formed with double modals.

We obtain a wide variety of such forms from our informants.

(239) In deep water, I might can get hurt. [14, Lame #742]

(240) It might could be worse. [52, Fla., #663]

(241) I might can't get no more fines, neither. [12, NYC, #385]

(242) I might would let him go. [29, S.C., #836]

(243) Even in the streets, people useta would ask us to sing. [35, S.C., #729]

Some of these forms allow a simple semantic interpretation: *might can* and *could* are *might be able to*. *Might would* is not so easy; whether or not it means anything different from *I might let him go* is difficult to say. There are many examples of *useta could*

(244) All these boys, that useta could beat ya, they can't beat ya no more. [26, N.J., #610]

Useta could plainly means *useta be able to*. But does *useta would* mean more than 'useta'?

(245) He useta would push me out of the trees.
[35, S.C., #729]

There is a corresponding present form to *might would*:

(246) [Can you get your civil rights without getting your head busted?] You might will in the long run.
[29, Ala., #883]

Semantically, we feel that these are pleonastic forms, based on the model of *might could*. There is nothing at all odd about using a modal form for the periphrastic *be able to*, though from a formal point of view it does break down a general rule of SE.

(247) Well, you must can't fuck good, then.
[26, N.J. #707]

In addition to these forms, we also find a sizeable number of the *M + don't* forms which are said to be unacceptable to white Southerners.

(248) I mean--I ain't seen they wardrobe; but if they gon' walk around the street with holes in they pants, they must don't have too much in they wardrobe; right?
[17, Oscar Bros.,#559]

(249) She still might don't even like the thing.
[39, N.Y.C., #803]

(250) You *might* could go to the church and pray a little, but you--that still might don't help you.
[13, Jets, #521]

(251) [Conversation in an elevator:]
Father: Didn't you read the note?
Son: I read it.
Father: Well you must didn't read it too good!

These examples merely illustrate the free character of the use of *must don't*, *might don't*, etc., in NNE. They make no claim to semantic interpretation beyond the modal itself. We find that the tense marker now follows the modal, and requires do-support.

We can speculate on the underlying process which leads to this advancement of the tense to second position. In the older pattern of *might could* we have two modals, each of which is capable of having a "zero" tense marker. When there are two in a row, we have only the general rule of English that states that the tense marker comes on the first--but hardly any visible evidence. It is a reasonable hypothesis to place the modal on the second element: the change would simply be that the tense marker is placed on the *last* modal instead of the first--quite consistent with observation. The conversion of the first modal to the status of a pre-verbal particle becomes increasingly plausible as we consider the material on quasi-modals in the next section.

3.6.7. *Quasi-modals.* The study of colloquial speech makes us increasingly aware of a large class of items which have some of the properties of modals but not all. Forms such as *hafta*, *useta*, *wanna*, *supposeta*, *gotta* have the following properties:

a. They are fused with the following *to*, which rarely if ever appears in full form. There is voicing assimilation, formation of flaps, simplification of geminates--the processes of morphological condensation typical of frequently conjoined function words.

b. For several, there is no tense marker left from the verb: *useta*, *supposeta*, *gotta*. The other two have no tense marker in NNE.

c. For all but *wanna*, the corresponding form with a separate subject is impossible or literary, and for many colloquial speakers, there may be no connection between *I want him to go* and *I wanna go*. Nothing else can intervene between the verb and the *to* particle.

There are further phonological processes operating upon these forms typical of frequent functional items. *I'm supposed to* becomes I'm aposta [ɑməpostə] for many speakers, WNS and NNE. These quasi-modals do not have many of the formal properties of the modals *can*, *may*, etc., but for the reasons given they may easily be re-analyzed as pre-verbal particles or sentence modifiers, not as main verbs.[45]

If we now return to the hyper-Z and hyper-D examples from 3.3 and earlier in this section, we see that in many cases the speaker is transferring the tense marker in exactly the same way as in *must don't*. In the case of hyper-Z, only (20a,b,g) will allow this interpretation. But many of the hyper-D examples we are dealing with are consistent with the notion that the tense marker is advanced for the reasons given. *Supposeta* appears in (229). Further, we have many examples of the quasi-modal *useta* in the preceding section on double modals. This behavior of *useta* is not at all confined to *useta would* or *useta don't*.[46]

(245) He useta thought... [16, Jets, #614]

(246) She useta hadda pick at me. [35, S.C., #729]

(247) My mother useta wanted me to be a doctor. [29, Ala., #883]

We also get similar constructions with the quasi-modal happened to:

(248) He happened to made the club up. [16, Cobras, #504]

As always, one can get idiosyncratic patterns which go beyond the normal development, in this case with the result:

(249) They must be can callin' us white, then. [13, Jets, #604]

Here we have three items in a row which bear zero tense markers. Considering the diminution of person-number agreement in NNE, one can understand how the role of the tense marker and its placement becomes problematic: only the -ed gives a firm indication of where the tense is, and that is difficult to hear and retain in many regular verbs. The irregular past tense, of course, is more frequent than the numbers of verbs would indicate. Note that many of the examples given which place this irregular verb later in the sentence involve such zero items as let, as in (230-231). It is no accident that the other verb which can precede a bare infinitive also appears with the tense marker displaced:

(250) That's what makes me don't trust them motherfuckers. [16, Jets,#614]

Our conclusion strengthens the conviction that the cases of hyper-D rarely indicate any weakness in the grasp of the -ed suffix, but rather a change in the rules for the placement of the tense marker. Clearly items like the quasi-modal better do not take the tense marker:

(251) She better had been fair with me. [16, Jets, #562]

(252) He better hadda moved out. [16, Jets, #614]

The NNE speaker then makes a rightward movement in the tense marker to the first item which clearly carries a tense. If one is not located, do-support is set up. In (252), better is rejected, hadda also (though to us it is plainly past) and move is selected to carry the -ed. There is no doubt that this "rule" conflicts with other operating rules, and needs considerable investigation to be specified formally, but it appears to us the correct solution to the "hyper-D" forms cited throughout this report.

The quasi-modal liketo. There is a well-known Southern quasi-modal, liketo, which occurs frequently in our materials.

(253) My father liketo kill me. [15, Oscar Bros.,#584]

(254) I like to drove down a field one night. [38, N.C., #888]

(255) I like to drowned. [25, Fla., #825]

(256) I was like to have got shot. [29, S.C., #207]

The meanings in all these cases are 'almost', and it occurs with *killed* many times, *fainted*, *drowned*, *shot*, etc. The expression *like to die* is very common among white Southerners, and even among those who have a diphthongal [aɪ], this word is pronounced [læk] very often. There is some reason to believe that it is derived from *lack*, and is not related to the verb *like*. In any case, *like to* functions like the pre-verbal particles we have been discussing above.

When we say that it occurs frequently, we do not mean that it has the status of a *be*$_2$. It may be considered a "Southernism" which is retreating in NNE in northern ghettos; all but two of our examples are from adults raised in the South. Nevertheless, this use of *liketo* may be encountered in any of the northern ghetto areas, even among Northern speakers.

The quasi-modal done. The pre-verbal particle *done* is another Southernism, widely used among whites, which we find in moderate frequency in our data. It is not maintaining itself like *be*$_2$, and may be disappearing in the northern ghetto areas.

(257) We done got this far; le's run! [15, Oscar Bros,#584]

(258) I done told you on that. [13, Jets, #606]

(259) You don't have it 'cause you done used it in your younger age. [15, Lame, #624]

(260) But you done tol' em, you don't realize, you d-- you have told 'em that. [39, N.Y.C., #804]

The meaning in (257-259) is plainly *already*, and this sense fits in with the notion of *done* as a perfective particle. In (260), we see it replaced by *have*, confirming the notion of a perfective meaning.[48] It frequently is reinforced with *already*:

(261) I done told you already. [13, Jets, #606]

(262) She done already cut it up. [13, Chicago, #470]

These meanings are very clear, but they do not account for the sense of *done* in many other cases, which seems to be essentially *intensive*.

(263) After you knock the guy down, he done got the works, you know he gon' try to sneak you. [13, Jets, #606]

(264) After I done won all that money. [12, T-Birds, #620]

(265) 'Cause I'll be done put--stuck so many holes in him he'll wish he wouldna said it.
[17, Cobras, #515]

It is difficult to see a perfective meaning in these examples, and even more in connection with a verb like forget:

(266) I done about forgot mosta those things.
[46, N.C., #665]

(267) [In a restaurant in Ohio]
I forgot my hat! I done forgot my hat! I done forgot it! [elderly Negro man]

The meaning of done, like so many elements of the central grammatical system, is inevitably disjunctive. It has a perfective meaning, and with it there is usually associated an intensive meaning. But there are occasions when the intensive sense occurs without a perfective sense, and then done is seen as perfectly appropriate. That is equally the case when a non-intensive perfective situation occurs, such as (259). This is a part of the general process by which meanings cluster, overlap, but never perfectly coincide. In this case, the meanings of perfective, intensive, and 'relevance to the present', normally converge: we done told you that already.

3.6 Negative attraction and negative concord

This section will deal with a number of syntactic processes in negative sentences which are characteristic of NNE and differentiate it from WNS and SE. In 3.5.3, we considered the morphological shape of negatives, and their place in the verbal paradigm. Here much more extended discussion will be given to the syntax of the negative. Some of the sentences produced by NNE speakers are strikingly different from SE in their surface form: Overheard at Spotless Cleaners:

(269) When it rain, nobody don't know it didn't.

In the midst of our first teen-age group session, the leader of the Cobras said:

(270) It ain't no cat can't get in no coop.
[15, Cobras, #477]

In an early narrative of the danger of death, a Negro man from the SEENYC sample, raised in New York City, said of a gunshot:

(271) Didn't nobody see it; didn't nobody hear it.
[46, N.Y.C., #210]

These sentences are puzzling because their semantic interpretation does not fit the known rules of SE or WNS. For white speakers, (269) and (270) have just the opposite meaning from what the speakers intended. The construction of (271) is that of a question, yet the intonation contour and the context plainly signal a declarative statement. It would seem at first glance that these sentences represent deep-seated differences in the organization of NNE grammar, which affect meaning and the fundamental syntactic apparatus. However, the discussion in the following pages will show that this is not the case--that these sentences are produced by slight adjustments in transformations used by all English speakers.

In this section, we will be concerned with the rules for negative attraction, concord and incorporation into indefinites. The generalizations will be useful for a consideration of the non-standard syntax of WNS and NNE alike; from this analysis, we will derive one of the clearest views of the relations between SE, WNS and NNE as systems of rules. The general pleonastic character of certain NNE rules will emerge more clearly. In general, we can say that the study of negative attraction and concord offers one of the best opportunities to study the relations between grammatical systems. The analysis given here will not enter deeply into the internal structure of the variation observed, nor study the variable constraints in NNE, although that is a logical next step. In this case, we will be able to compare dialects by using the simple triplet of 0, ~, 1--characterizing rules as applying never, optionally, and categorically.

3.6.1. The SE negative attraction rule. From the outset, we must take into account the fundamental rules for negative incorporation and attraction first formalized by Klima (1964:267, 280). Klima begins with a category of Quantifier which includes such surface forms as some and a. These are converted into Indefinites in the presence of a negative pre-verbal particle, so that instead of *That house doesn't have some doors, we have the indefinite any replacing some in That house doesn't have any doors. In the notation used in this section, the rule will appear as:

$$\begin{array}{lllllll} (272) & \text{Neg} - \text{X} - \text{Quant} & & & & & \\ & 1 \quad 2 \quad 3 & \longrightarrow & 1 & 2 & \text{Indef} + 3 & \end{array}$$

$$\begin{array}{lllllll} (273) & \text{Quant} - \text{Y} - \text{Neg} & & & & & \\ & 1 \quad 2 \quad 3 & \longrightarrow & \text{Indef} + 1 & 2 & 3 & \end{array}$$

Two rules are needed since the rule operates both forward and backward from the Neg which is located (by a previous rule) in the pre-verbal position. Throughout this discussion, we will use the simple notation Neg for the sentence-negating Neg which is transferred from the type marker to the pre-verbal position. Adverbial negatives, or negatives implicit in a word such as without will be indicated as [+Neg] with an appropriate subscript on the bracket such as $[+\text{Neg}]_{\text{adv}}$.

The rules given here apply throughout the sentence, since no restrictions are placed on X and Y. There are cases where the rule is optional, and obligatory in others, but the details will not affect the further discussion.

Given these indefinites, we find that in SE the negative is attracted to the first indefinite in the sentence. This process is obligatory if the indefinite precedes the verb, but optional if it follows. Thus we have in SE:

(274) Nobody knows anything.

But we cannot have

(275) *Anybody doesn't know anything.
(276) *Anybody knows nothing.

These rules are obligatory for NNE speakers as well as SE and WNS. In our memory tests (see section 3.9) we found that sentences such as (275-6) were simply baffling to our subjects. They did not even try to repeat them--the effect was close to that of a foreign language.

When the indefinite follows the verb, we can have either form, with or without negative attraction:

(277) John knows nothing.
(278) John doesn't know anything.

The indefinites that we are concerned with are realized (without the negative) as *any*, *one*, *ever*, *either*. When the negative is incorporated, we get

not + any → no, none
not + one → no one, none
not + ever → never
not + either → neither

Even without the negative incorporated in them, these indefinites carry negative information; that is, in negative sentences, their presence instead of other Quantifiers indicates the operation of rules (272-3). The incorporation of the negative is a purely formal operation in this sense.

(279) I want some more.
(280) I don't want any more.
(281)*I don't want some more.

Given the existence of a negative element in the underlying structure of (280), the resulting forms of the quantifiers are predictable and carry no information.

As Klima has observed, the negative attraction rule is ordered after the passive transformation, since the negative of *Nobody likes anything* is *Nothing is liked by anybody*. It is also obvious that this rule is ordered before person-number agreement takes effect.

It is interesting to note that the obligatory character of negative attraction is strongest when the indefinite is in absolute first position, and that some items can protect the indefinite from the obligatory force of the rule. Thus the following examples seem quite acceptable to many speakers:

(282) For anyone not to come would be a shame.
(283) That anyone didn't want to come is hard to believe.

Thus complementizer placement (Rosenbaum 1966) must be ordered before negative attraction, if we are to preserve a simple statement of the conditions for obligatory application of the rule--i.e., absolute first position. The situation is not so clear with the third member of the set of complementizers, which theoretically has an abstract POSsessive feature preceding the indefinite:

(284)$^?$Anyone's not eating in my mother's restaurant is bound to make me angry.

When the clause is embedded in a matrix sentence, the situation also seems to be marginal:

(285) $^?$I hate for anyone not to eat in my mother's restaurant.

(286) ?I hated it that anyone didn't eat in my mother's restaurant.

(287) ?I hated anyone's not eating in my mother's restaurant.

Although these sentences are marginal, they are clearly more acceptable to most speakers than

(288) *He noticed that anyone didn't go.

It therefore appears that "first position" may be irrelevant to the conditions for obligatory negative attraction. It seems more likely that an indefinite is never allowed to precede the negative; note that (as Klima has pointed out) the marginal cases of (282-4) almost always involve verbs or predicates of negative affect. The negative content of *hate* seems to diminish the obligatory force of negative attraction, and of course an actual negative removes this compulsion altogether:

(289) I don't believe anyone would eat there.

For a consistent approach to this obligatory condition, it seems best to posit that the extraposition rule is obligatory, operating before negative attraction. Thus the negative predicate precedes the indefinite as a result:

(290) It(anyone doesn't eat in my mother's restaurant) - is a shame → It's a shame (anyone doesn't eat in my mother's restaurant).

Sentences such as (282-4) are therefore derived by a later complementizer placement, foregrounding, and deletion of the dummy *it*. The basic outlines of the SE rules for negative attraction are therefore:

(291) X - Indef - Y - [+neg] Obligatory if
1 2 3 4 → 1 2+4 3 X ⊬ [+neg]

In the notation used here, the symbol ⊬ means "does not contain". The feature [+neg] is of course contained in the preverbal particle *Neg* as well as in such adverbs as *hardly*, *scarcely*, *rarely*, *seldom*, and verbs such as *doubt*, *deny*, as well as predicates such as *a shame*, *hard to understand*, *impossible*, *ridiculous*, and *unbelievable*. Marginal cases involve *hate*, *detest*, which lead to intermediate acceptability of sentences such as (285-7).

After (291), a rule of negative incorporation will apply that combines a pre-verbal particle *Neg* with the Indefinite to yield *none*, *never*, etc. This rule does not affect adverbs such as *hardly*, which simply remain in place to give *Hardly anybody...* When the main verb of the sentence contains [+neg], then there will be required a special provision which moves the feature without moving the verb: Anyone denies that → No one denies that. When the [+neg] feature is contained in a separate predication such as is a shame, the operation of (291) will lead to exactly the same results as extraposition:

(292) It - anyone - Y - is a shame
1 2 3 4 → 1 4+2 3

Therefore we need not propose that all extraposition be made obligatory. The force of (291) is in effect a compulsory extraposition, and we need not enter this condition for non-negative sentences.

A second part of the SE rule transfers the negative to a following indefinite.

(293) Neg - X - Indef
1 2 3 → 2 1+3 X ⊦ Indef

This rule is optional, and applies as shown only to the pre-verbal particle.

(294) I didn't hit anyone → I hit no one.

There are special conditions required to note that some adverbs such as hardly can be transported by the rule, but not others such as never. Verbs, of course, are unaffected even when they contain a negative feature. This rule is not general to all of SE: it is sharply limited for colloquial speech. We cannot specify the particular conditions under which (293) can apply to colloquial standard, but in general it cannot. Sentences such as (295-7) are bookish and literary in flavor.

(295) I know nothing about it.
(296) He struck no oil.
(297) Did he find no one home?

These are characteristic of a dialect which we may call Standard Literary English [SLE], as opposed to the Standard Colloquial English [SCE] which does not apply (293) and preserves the negative in the pre-verbal position.

(298) I don't know anything about it.
(299) He didn't strike any oil.
(300) Didn't he find anyone home?

The cases where SCE tolerates a later negative seem to be emphatic as in I want nothing from you or involved with embedded sentences as He has nothing to do. But we also have There was nobody home, which seems more natural than There wasn't anybody home. The details are not clear, but in outline (293) is SLE property.

3.6.2. The WNS extension: negative concord. One can sum up the SE approach to negative attraction by saying that the negative is attracted to the first indefinite of the sentence--obligatorily before the verb, optionally thereafter. The non-standard equivalent of this statement is simpler on the face of it: the negative is attracted to every indefinite. But it is necessary to add the same conditions: obligatorily before the verb, and optionally thereafter. It would seem necessary, then, to preserve the two separate rules of type (291) and (293), and to alter them so that the negative is dispersed pleonastically throughout the sentence. If it were not for the distinction of obligation between pre-verb and post-verb status, we could write one transformation with a convention to indicate position before or after the verb.

The distinction between negative concord and negative attraction or concord is that the negative remains in place when it is transferred--that is, it multiplies itself.

(301) $$\begin{array}{lllll} [+neg] & - \; X & - \; Indef & & \\ \quad 1 & \quad 2 & \quad 3 & \longrightarrow & 1 \;\; 2 \;\; 1{+}3 \end{array}$$

Since there are no restrictions that X must contain no Indefinite, this rule is plainly simpler and more general than (293). We can use the more general feature [+neg] here since adverbs such as hardly set this rule into motion.

(302) [WNS] He hardly eats any food→He hardly eats no food.

However, negative verbs such as deny or doubt do not operate this way, and certainly further details must be added. Here we will be concerned with the form of negative concord with the pre-verbal negative and negative adverbs. The rule of course is optional--there is no compulsion on WNS speakers to convert every indefinite into a negative, and as we shall see, they do not.

(303) I don't think anybody wants to die. [16, Inwood, #708]

As far as the scope of negative concord is concerned, there seem to be no restrictions on sentence boundaries, and it can be extended to include all indefinites within the surface sentence limits. To a certain extent, this is true of SLE also, for (293) shows no constraint to sentence limits:

(304) I don't like the way any of you did that.
[SLE]→I like the way none of you did that.
[WNS]→I don't like the way none of you did that.

There are many details to be worked out here, especially as far as SLE is concerned. He didn't paint where there was any dirt does not transform to He painted where there was no dirt without changing the meaning. But it is possible to say He didn't paint where there was no dirt with the same meaning as the original. Furthermore, it seems possible to extend negative concord indefinitely...

(305) [WNS] I ain't gonna sit in no chair and let no crazy lawyer tell me no lies about no law that no judge has in no law book that no smart politician wrote or nothin' like that, nohow.

There is just one negative in the underlying structure here. In general, negative concord, or "double negatives" offer a very clear view of the difference between underlying and surface structure. A strong stress on a second negative will signal the intention to refer to a second negative in the deep structure. Thus we reverse the meaning by stress:

(306) Nobody here drinks no beer ≠ Nobody here drinks no beer.

If we preserve the constraint that the intervening material in (293) or (301) does not contain a negative, it will still be possible in (301) to have negative concord. Thus as long as the negative is reduplicated, we can pass on from indefinite to indefinite. But this restriction would not be appropriate if WNS speakers can skip indefinites:

(307) ?Nobody takes any stuff from nobody around here.

Such sentences seem acceptable to our native intuitions at one moment, unacceptable the next--and the difficulties of using intuitive judgments with non-standard dialects will be shown in chapter 4. Only further exploration of actual WNS speech patterns will provide this information. But at the moment, such a restriction on (301) seems unnecessary, and the present form will generate (307).

Transfer to pre-verbal position. There are two distinct dialects of WNS as far as negative concord is concerned. For one, which we will call WNS_1, the following sentence is unacceptable; for the other, WNS_2, it is well-formed.

(308) Nobody don't know.

For WNS_2, the negative can appear in the pre-verbal position as well as incorporated into the preceding indefinite. We can also retain this negative with transfer to following indefinites.

(309) Down there nobody don't know about no club.

These sentences will not be produced by (301) as it now stands, for after the application of the negative attraction rule (291) the Neg is removed from pre-verbal position, and it will not be transferred back again by (301). On the other hand, these rules will produce (310):

(310) He don't know nothin'.

and this is acceptable to both WNS_1 and WNS_2. Therefore rule (291) and (301) characterize WNS_1 but not WNS_2. What adjustment in the rules will register the facts for this dialect? We have two choices:

a. Make the Negatrac rule (291) pleonastic; that is, let the structural change lead to

$$1 \quad 2 \quad 3 \quad 4 \quad \longrightarrow \quad 1 \quad 4+2 \quad 3 \quad 4$$

This will keep the negative in the pre-verbal position, but it will also keep the [+neg] in *hardly* there, yielding **Hardly anybody hardly does that*..., and the same for predicates like *is a shame*. Furthermore, it will make WNS_2 seem more different from WNS_1 than WNS_1 is from SLE, which is on the face of it a strange result. (On the other hand, this kind of pleonasm would fit in well with the type *Anybody denies that* → *Nobody denies that*.)

b. Develop the Neg Concord rule (301) further by including the pre-verbal position, or tense marker, as one of the target sites for negative transfer. This indeed seems to be the right solution, in view of a development of this rule in NNE which carries us one step further, as discussed below. Thus we have

$$(301') \qquad [+\text{neg}] - X - \begin{matrix}[+T] \\ \text{Indef}\end{matrix}$$

$$1 \qquad 2 \qquad 3 \quad \longrightarrow \quad 1 \quad 2 \quad 1+3$$

Here the negative feature is distributed to either a tense marker or an indefinite. But note that even if both are optional, (301') will generate the wrong result by distributing the negative to a tense marker in a following clause.

(304') I don't like the way any of you did that

[WNS] *→I don't like the way none of you didn't do that.

Therefore we must write in a restriction that if 3 is [+T], then $X \not\ni \#$. In one way, this development is not entirely desirable, because WNS_2 has a more complicated grammar, even though the data seems to show greater generality for its use of negative concord. Note that the scope of the single underlying negative is gradually enlarging from SLE to WNS_1 to WNS_2. These are all optional rules, though it is apparent that the frequency with which the rule applies drops steadily as we consider points further and further from the original position. The use of "optional" here is only the first step in the development of a variable rule, but it will serve very well to contrast the optionality of some subrules with the obligatory character of others.

3.6.3. The NNE extensions of negative concord. When we approach NNE, we are first struck by the qualitative extension of negative concord, with sentences ranging from very ordinary uses of (301) to others which somehow seem to carry the principles further. We have the ordinary use of (291) and (301) in

(311) Nobody had no bloody nose or nosebleed... [13, T-Birds, #375]

The negative concord rule (301) seems to be applied with great regularity.

(312) I'm not no strong drinker. [15, N.Y.C., #YH-41]

(313) She didn't play with none of us. [27, S.C., #852]

(314) She might not never get him no time. [15, Jets, #560]

In this last example, we note that negative concord builds up with a regular rhythm which seems to go beyond WNS, even though the corresponding SE sentence, She might not ever get him any time, is merely "emphatic."

(315) You better not never steal nothin' from me. [16, Jets, #614]

Combinations with might not never, etc., and hardly never, are very common.

(316) A nigger hardly never get no pussy. [16, Lame, #753]

(317) Once you get an even break, don't fuck it up, 'cause you might not never get no time see 'em again. [15, Jets, #560]

We find that NNE falls in the class of WNS_2, since the negative is freely re-transferred to the pre-verbal position.

(318) Nobody don't know where it's at. [17, Cobras, #518]

(319) Nobody not supposed to bring firecrackers to school. [13, Jets, #610]

(320) Down there nobody don't know about no club. [25, Fla., #825]

(321) Nobody might not surprise me, and shoot me! [15, Oscar Bros., #585]

This last example meant "Nobody will surprise me." So far, it seems that NNE is equivalent to WNS_2, but with a slight qualitative richness in negative concord. But the important thing about the basic negative concord rule for NNE is that it is not optional, while for both WNS dialects, it is. Whereas the WNS rule may operate 10, 20, or even 80 or 90 per cent of the time, the NNE rule seems to have a φ of 1.00. Table 3-26 shows the distribution of the negative concord rule (301) within the clause for NNE peer groups and others. The contrast with Table 3-5 and 3-6 is quite striking: these show the variable which approaches most closely to the status of a constant--simplification of monomorphemic clusters before a consonant. But in Table 3-5, almost every one of the ten Jets drops the rule at one point or other--only one showed 100°/o simplification. But eight of the same ten used negative concord 100°/o of the time in transferring the negative to indefinites within the clause.

Table 3-26 shows in the first column the absolute numbers of applications of the rule compared with the total number of indefinites where the rule might have been applied. For the NNE peer groups, it applies 98-99°/o of the time in single style, and--for the T-Birds and Cobras, 100°/o in groups. In the second column, the numbers of individuals who used the rule categorically is shown--in every case, the great majority. A comparable table for KD_{mm} will show the reverse--the great majority drop the rule at one point or another. As we shall see in Chapter 4, one can actually deal with these individual cases quite successfully, and show that most of the exceptions to such a regular rule are motivated in terms of the marginal position of the individual in respect to the group--or the presence of a conflicting set of values.

The regularity of the NNE negative concord rule extends somewhat wider than most NNE features as discussed in 3.5. The lames are not far behind the peer groups--only those individuals who are most removed from the peer group culture show variation in their use of the rule. We have also noted here the 48/48 record of the Danger Girls, our one record of a female peer group, and the regularities which appeared in our work with Negro adolescents in Venice, Cal. and the Hough area of Cleveland.

The white Inwood groups contrast sharply with the data for the NNE peer groups. As we can see, WNS can use the negative concord rule quite freely--but it is essentially variable for all white speakers we have met. Here the Inwood groups show a high percentage--80°/o--of negative concord, but nowhere near the NNE level. And only 4 of 15 records show 100°/o: two of these were trivial cases of 1/1.

TABLE 3-26

USE OF THE NEGATIVE CONCORD RULE
BY NNE PEER GROUPS AND OTHERS

		Negative concord within the clause			outside the clause, to S-modifier indefinites
		to all indefinites		to [+T]	
	STYLE	instances	no. 100°/o	instances	
T-Birds	A	62/62	5/5	2/13	
	B	94/96	11/13	12/34	1/11
Cobras	A	70/70	11/11	12/35	0/1
	B	186/188	14/16	7/18	0/5
Jets	A	149/151	13/15	10/38	1/3
	B	360/370	25/30	39/97	2/7
Oscar Bros.	A	53/55	4/5	10/21	5/5
	B	79/81	3/4	6/12	0/2
Lames	B	73/81	10/12	1/6	0/3
Danger Girls	A	48/48		4/13	
Venice	B	31/37	4/6	4/9	0/1
Hough	A	12/12			
Inwood	A	25/32	2/7	0/36	0/2
[white]	B	34/42	2/8	0/35	0/1

Thus NNE differs from WNS in a most important way. The difference between a variable rule and a categorical one is a fundamental one, and the transition is not made lightly. When we see how sharply all of the NNE groups are divided from the WNS groups, and how uniform their behavior is, it becomes quite apparent that NNE is a system in itself, though closely related to the other English dialects.

In our presentation of variable rules, we have wished to emphasize that this variability is not a deviation from the "true" norms, caused by some difficulties in performance which make it impossible for speakers to grasp these norms as well as others do. If that were the case, then all NNE rules would be variable, in so far as they departed from SE. In this case, what would we say about WNS? That they failed to grasp the NNE norm? What failure in performance makes it possible for NNE speakers to apply negative concord 100^{o}/o of the time? What has happened to the "dialect mixture" which was supposed to account for the variable rules studied in sections 3.3 and 3.4? In 3.5 and 3.6 we see the opposite situation, where NNE is consistent and invariant. The question must be posed to those who see NNE as a collection of deviations from the SE standard, and to those who see the actual performance of the ghetto youth as a deviation from some ideal, homogeneous Black English. In either case, we see that the existence of variable rules is confirmed by the discovery of invariant rules--we cannot hope to explain away the variability of the copula and use the same arguments for the constancy of negative concord.

Variable sub-sections of the negative concord rule. The consistency we have shown here will not appear at first glance to those approaching negative concord as a whole. In the first place, the transfer of the negative to the preverbal position, incorporating with the tense marker, is not constant in NNE. On the contrary, speakers use it from 25 to 50^{o}/o of the time. . . keeping fairly close to the average of 35-40^{o}/o. All of the NNE groups show some use of this sub-rule, following (301') and therefore agreeing with WNS_2 in this respect. But the Inwood groups do not--they are clearly WNS_1, using only rule (301), as Table 3-26 shows.

Another sub-section of the rule which must be split off concerns transfer to indefinites outside of the clause, which is definitely not constant for NNE--on the contrary, this *is not* done much more often than it is done. The last column of Table 3-26 shows the frequency with which NNE groups and others incorporate the negative into appositional ,*either*, *anyhow*, *anymore*. These plainly stand outside of the central clause, separated by sentence boundaries in the underlying representation, and are not included. Typically, we have

(322) They're not too hip, or anything.
[13, Jets, #605]

In our first quantitative studies of negative concord we included these indefinites with the primary category, but it soon became apparent that the small degree of variability in the rule was due to just this factor, and the rule appeared as properly categorical when it was removed.

As far as the adults are concerned, we find that they fall away rapidly from the NNE categorical rule. Only three of the adults in our sample used the rule all the time--two of these are in the lower section of the working class raised in the South, and all three are men. One of these is the only adult who used a moderate percentage of ain't in the preterit (see 3.5.3). The study of negative concord among the adults is therefore a study of social stratification of a variable feature, and is quite apart from the NNE constant rule we are considering here. This situation confirms the view we have of the NNE grammar, that it develops in pre-adolescence and reaches its full and most characteristic form in the years 13-17 among the central members of the street culture. As a speaker leaves this culture, and enters adult life, his grammar changes quite rapidly towards a modified form of NNE--though still incorporating many of the fundamental rules.

The use of any and other indefinites in a negative clause is therefore a mark of departure from NNE. As we examine our records for such items, we encounter the names of adult women who are noted for their hypercorrection in other areas. For example, a woman marked for her many examples of hyper-D in 3.2.9, says:

(323) He won't do anything but go... [35, S.C., #729]

One of the lames who stood out sharply since he was interviewed together with a secondary member of the Jets says:

(324) I don't have any best friends. [15, Lame, #623]

Even the lexical choice and the content of this remark can identify the speaker as remote from peer group culture, in which the corresponding term is main man. Larry W., the speaker, will figure prominently in our contrast of lames and peer group members in 4.3. He said to John Lewis at one point, "We don't be in the house; we be on top of the house..." and then turned to Leon who was with him and said

(325) But we don't be there anymore, dummy!

Other marginal categories. Besides the sentence-modifying eithers and anymores, there are a number of other variable categories within the clause involving implicit [neg]. One such item is without which bears a [+neg] as seen in this pair of quotations:

(326) I gave you a dime, too, without no effort. [15, Lame, #623]

(327) ..without no police botherin' him. [16, Cobras, #607]

At the same time, we find a great many cases of without plus any. For example, the leader of the Thunderbirds says, in sounding against others in an excited group session without puttin' any corn flakes on... without any drawers on...without any gums. We must therefore consider that some implicit [+neg] do not have the same status as others. We can feel the [+neg] implicit in but which makes the following non-standard:

(328) My sons, they ain't but so big. [26, N.Y.C., #840]

(329) Wouldn't be but one. [36, S.C., #729]

(330) They don't know but one thing. [52, Fla., #662]

Yet the but does not necessarily enter into the same pattern of compulsory negation as not. On the other hand, hardly has an implicit negative, and along with scarcely, etc., it enters fully into the consistent rule represented in Table 3-26.

The underlying quantifiers. Since we now know that NNE is categorical in its use of the negative concord rule, we can use this information to make inferences about the nature of the underlying quantifiers or indeterminates which are converted to "indefinites" by Neg. It is commonly assumed that the indefinite article is included in this category, as reflected in Klima's account. Some would argue that a may underly no in I don't have no book. But this seems very unlikely, in view of the fact that NNE speakers do not convert a to no.

(331) Never lost a toe, either. [12, N.Y.C., #416]

(332) I ain't never lost a fight. [12, Chicago, #471]

In the same way, we have to reject the notion that some is the underlying form of any, at least as far as NNE members are concerned.

(333) ..I don't give my friends some. [13, T-Birds, #465]

(334) I ain't want some more. [9, T-Birds, #586]

(335) They don't have something like this. [13, Jets, #610]

(336) We don't sometime use that. [12, N.Y.C., #416]

It is possible that this use of some represents a failure of the negative incorporation rule at the outset, but it seems more likely that the indefinite is something more abstract than some or any, and that the choice of some represents positive semantic information. There is certainly something wrong, from an SE point of view, in saying I don't have something like that. The expression I don't some is marginal for most. But it must not be forgotten that the meanings of these items can shift. In large areas of the middle West, especially through Ohio, it is quite normal and acceptable to use any positively. We go to the movies any more means 'we go nowadays' and the redundant use of any with negatives gives way to more positive semantic function.

Realization of the negative as not. In a great many sentences with negative concord, NNE uses a free-standing not as one extra negative, where one would have expected the rules for negative attraction and concord to incorporate it with others.

(337) My mother, she ain't took me there not yet. [9, N.Y.C., #364]

(338) Not no more hardly, though. [13, Queens, #819A]

(339) I can walk through this wall, but not my physical structure can't walk through this wall. [15, Cobras, #566]

This phenomenon is not very common, and is hardly a part of the regular rule, but it seems to represent an extension of negative concord which takes the negative to other likely places where support is not usually provided, and realizes it as not. Sometimes it appears as no:

(340) I never went to no much school. [35, N.Y.C., #343]

3.6.4. Transfer of the negative to pre-verbal positions outside the clause. Like the dialects of WNS outlined above, NNE can transfer the negative to indefinites outside the clause.

(341) I'm not gonna stand there and let nobody hurt 'im. [15, Jets, #524]

(342) But I don't think it'll be no more than about ten months. [15, N.Y.C., #YH-35]

This last item may not be included under this rule if the special negative transport rule for I think that... precedes the negative concord rule. In any case, the transfer to following indefinites is quite frequent.

(343) He never did know--wanta know how nothin' happen.
[35, S.C., #729]

We now encounter one further extension of the negative concord rule which is entirely outside of WNS possibility. It is indeed quite beyond the imagination or comprehension of WNS speakers that a negative can be transferred to the preverbal position in a following clause. For WNS speakers, such a negative would inevitably refer to a second underlying negative in the deep structure, and so reverse the meaning. We first encountered this phenomenon in a statement of Speedy quoted above.

(270) It ain't no cat can't get in no coop.

This sentence occurred in a conversation which followed the question, "Do cats .. ever get into your cage?" Speedy, the leader of the Cobras, answered Clarence Robins, "They never got in one of mine." Junior says at the same time, "No; they scree-- unless they got th- one of them jive coops!" There is general laughter, Speedy chuckles twice, and utters (270).

For some time, we considered that (270) might be an idiosyncratic extension of the rules, although it occurred in a context which made this seem unlikely. However, in the course of the next year we collected the following additional examples:

(344) [KC: What about the subway strike?]
Well, wasn't much I couldn't do. [15, Cobras, #496]

(345) I don't know if the girl never got fucked or not!
[13, Jets, #621]

It was not mentioned in our previous discussion that never in pre-verbal position does not accept the interpretation of negative concord from a previous clause in WNS.

(346) I told you, I don't believe there's no God.
[16, Jets, #667]

From the context of a lengthy discussion, there is no doubt that the speaker, doesn't believe that there is a God.

(347) When it rain, nobody don't know it didn't.
[statement made by a Negro clerk]

(348) Back in them times there ain't no kid around that ain't--wasn't even thinkin' about smokin' no reefers.
[29, Bronx, #812]

Finally, we observe the following line embedded in "The Fall", one of the most polished of the long epic poems preserved in the oral tradition of Negro folk lore:

(349) It wasn't no trick couldn't shun her.

In this toast, the narrator is telling of a whore who was a superb professional, and in Saladin's version given here, the negative is transferred to the following clause just as in the other examples. The meaning is, "There was no customer who could shun her." (For further discussion of toasts, see 4.2).

A comparison of variability and constancy of negative concord in English dialects. The discussion of negative concord allows us to compare at this point the range of dialects through using the three basic concepts of 0, ~, 1 discussed in 3.2 above--symbolizing that a rule is never applied, is applied optionally, or is always applied. The following scheme symbolizes the situation:

	Use of negative concord			
	with indefinites		with tense markers	
	same clause	other cl.	same clause	other cl.
SE	0	0	0	0
WNS_1	~	~	0	0
WNS_2	~	~	~	0
NNE	1	~	~	~

This gradual extension of the scope and completeness of a grammatical rule is characteristic of many NNE features. In general, it provides us with the kind of model required to explain changes in linguistic structures--an impenetrable mystery if we confine ourselves to the study of categorical behavior. Within each of these ~ symbols there is a rich opportunity to discover the variable constraints upon the variable, and to penetrate more deeply into the mechanism of the shift which is seen here in synchronic section.

3.6.5. Negative inversion. There remains one important feature of negative syntax, in which NNE carries colloquial Southern beyond the pattern used by white speakers. It is the negative inversion first noted in (271), in which the reversal of tense marker and subject characteristic of questions occurs in declarative sentences.

(350) Ain't nothin' happenin' 'n shit. [16, Jets, #668]

(351) Ain't nobody complainin' but you, man. [16, Jets, #715]

(352) Ain't nobody gon' let you walk all around town to find somebody to whup them. [15, Oscar Br., #584]

(353) Ain't no white cop gonna put his hands on me. [16, Jets, #562]

These and many other examples will illustrate the strong affective character of this construction. As far as the formal structure and derivation is concerned, it is possible to relate them to sentences of the form *Nothin' ain't happenin'* (from Indef - is - V) or from sentences with two original clauses of the form *It ain't nothin' happenin'* (with dummy *it* = SE *there*). The second proposal is obviously the simplest --the deletion of a meaningless *it* yields the right results. In (350-353) we usually do not find the relative complementizer and copula retained, so that it is plausible to derive all of these from an abstract

(354) $$\text{Indef [S]} - \underset{[+\text{neg}]}{\text{cop}} \rightarrow \text{It} - \underset{[+\text{neg}]}{\text{cop}} - \text{Indef [S]}$$

We also have cases where other predicates stand after the indefinite.

(355) Ain't nobody in my family Negro. [12, T-Birds, #318]

(356) Ain't nobody a man. [15, Cobras, #566]

(357) Ain't nothin' broken on me to fix. [10, T-Birds, #465]

(358) Ain't nothin' you can do for 'em. [56, S.C., #755]

The last example is strong evidence for derivation from sentences with dummy *it*. Whereas (350) may be derived from a single clause, and (355) similarly from *Nobody in my family ain't Negro*, if we posit an underlying

(358') *Nothin' ain't (that) you can do for 'em.

since this would be automatically converted to (358")

(358") It ain't nothin' (that) you can do for 'em.

Furthermore, we have other sentences where the tense marker is retained after the indefinite, pointing to a second clause in the same way as (358):

(359) Ain't nothin' went down. [rpt] [18, Jets, #561]

(360) Ain't nobody ever thought 'bout pickin' up nothin'. [25, Fla., #825]

With all of this evidence, it seems odd that the present section was entitled "Negative inversion". This choice of a heading reflects the fact that we cannot overlook the relationship between (350-357) and such sentences as

(271) Didn't nobody see it, didn't nobody hear it. [46, N.Y.C., #210]

This is plainly negative inversion, somehow related to *Nobody didn't see it*. It is a form which is apparently well known in colloquial Southern speech, without negative concord: *Didn't anybody see it*. The *ain't* forms cited above are apparently not used by white southerners, although we have only meager data on this point. As we noted in 3.5.3, *ain't* is used for *didn't* about half the time in NNE, so that the following may be parallel to (271):

(361) Ain't no cop never beat me in my head. [16, Jets, #614]

Furthermore, the explanation of (350-357) as derived from two clauses does not suggest any reason why *indefinites* are always involved. On the basis of the derivations given, it should also be possible to drop any dummy *it*:

(362) It ain't my stick → Ain't my stick.

Of course we know that this is a possible deletion, although it is not common in our records, but it can hardly be mistaken for the type of sentences we have been quoting. The deletion of *it* in such a hypothetical sentence as *Ain't my stick* is casual, allegro style, whereas *Ain't no cop never beat me in my head* is not: it is emphatic, excited, and strongly affective.

There are other cases where the explanation from two clauses is not possible. We find *don't* as well as *didn't*, indicating that the tense marker has been moved from the main clause and received support.

(363) Don't nobody break up a fight. [12, Chicago, #470]

(364) Don't no average motherfucker make no fifty dollars a day. [16, Jets, #667]

(365) Doesn't nobody really know that it's a God, you know. [16, Jets, #560]

Moreover, it is extremely common for negative inversion to take place with *can't*.

(366) Can't nobody tag you then. [12, Chicago, #470]

(367) Can't nobody beat 'em. [11, Cleveland, #350]

(368) Can't nobody stop it. [14, Jets, #616]

So far, all of the examples that we have given show the negative in absolute first position. It is apparently possible to have another clause precede, though this is unusual; we even have one instance of a clause with negative inversion embedded in another clause.

(369) He's big, and can't nobody check him and shit.
[16, Jets, #667]

(370) I know a way that can't nobody start a fight.
[12, Chicago, #470]

The range of modals which can be used seems to be quite limited. From the emphatic and affective nature of negative inversion, we would infer that *may*, *might*, *would*, and *should* are not likely to be used. We find one case of *won't*:

(371) Won't nobody catch us. [12, Chicago, #470]

We also find the past tense of the verb *be*$_1$, which of course is open to either interpretation discussed here.

(372) Wasn't nobody home. [16, Jets, #667]

(373) Wasn't nobody gettin' hurt or nothin'.
[16, Jets, #562]

But as conclusive as this evidence seems, we also encounter forms where negative inversion might have been used with modals, but *ain't* appears in first position instead.

(374) Ain't nobody could--y'know like.. [15, Cobras, #477]

It is the same speaker who said *It ain't no cat can't get*...

It-deletion vs. negative inversion. In order to assess the evidence for these two opposing interpretations of the *Ain't nobody*... sentences, it will be helpful to summarize the arguments as follows:

for it deletion	*for negative inversion*
a. It is the simplest mechanism.	a'. *It ain't* cannot account for *did*, *was*, modals, so we need negative inversion anyway.
b. *Ain't nothin' you can do* admits no other explanation.	b'. Why delete *it* only before indefinites?
c. *Ain't nothin' went down*, *Ain't nobody ever thought* show two tense markers	c'. *Went* and *thought* may only be perfect forms here. But even if they contain tense markers this is possible in NNE. Of course *ain't* can be equal to SE *hasn't* or *didn't*.
d. *Ain't nobody could* shows speaker's rejection of negative inversion.	

It appears that there are exceptions to the rule that negative inversion takes place only before indefinites. The following cases show the opposite.

(375) Don't many of them live around here.
[12, Cleveland, #350]

(376) It's against the law--that's why don't so many people do it. [11, Chicago, #470]

The second example can be explained as a product of the NNE inversion rules in embedded sentences, discussed in 3.7. However the first clearly shows negative inversion before many. In one sense, the argument supports it deletion, but since it occurred with don't, which argues against it deletion, the example cuts both ways.

The conclusion of the argument is plainly that it-deletion is used with some sentences beginning it ain't..., producing a close resemblance to negative inversion. Negative inversion is a productive process in itself. Native speakers may actually differ in their analyses of different sentences, and the language may accordingly develop in both directions. We will now turn to the exploration of the rules for negative inversion, first considering the nearest parallel in SE.

Standard negative inversion. In SLE it is possible to bring negative adverbs to the front of a sentence, at the same time reversing the position of tense marker and subject, the flip-flop pattern also used in questions.

(377) Rarely have I seen such insolence.
(378) Hardly did he make his presence known when...
(379) Not often did he notice her.

These are plainly SLE. Less literary, but still formal parallels occur in our interviews with middle class adults.

(379) Not until he came into United States did - uh - they decide to get married... [31, Bronx, #677]

(380) The Negro doesn't know about the Negro, and neither does the white know about the Negro. [26, Ohio, #672]

The same kind of adverbial foregrounding can occur in speech which is not formally marked as SLE, and with adverbs that are not strongly marked with [+neg]. Only seems to be favored; the following example was spoken by W. Labov in casual conversation on the telephone (as observed by P. Cohen):

(381) ...and only on the 260 can I do it.

The reference is to a tape recorder, the Sony Model 260. If we define this kind of negative inversion as the usage of middle class speakers, not necessarily literary in style, we may be more accurate. Our only middle class speaker raised in the South provided another example with neither:

(382) Certainly not the most homely girl, but...neither did I look for the most -uh- glamorous. [46, N.C., #669]

3.6.6. General rules for English negative attraction and negative concord. The existence of the standard negative attraction, negative transfer, and negative inversion provides some evidence for the general rule which moves the negative to the front of the sentence; and this data fits in well with the obligatory negative attraction and optional negative inversion which we observe in NNE. One approach to the rules for negative syntax in NNE would be to distribute the negative in one sweeping rule from initial position, dropping it into one slot after another with special conditions in each case. Such a rule would lump together negative concord and negative attraction; it might simplify the over-all pattern for NNE, but only at the cost of losing certain information on the particular conditions involved. More importantly, a single NNE rule for placement of the negative would lose the distinction between the characters of several processes.

a. Obligatory negative attraction. This is common to all dialects of English which we know. Since it is obligatory, it carries no information.

b. Negative inversion with affective value. This is an optional process which gives additional prominence to the negative, and takes different forms in different dialects. It has a strongly affective character wherever it occurs.

c. Negative concord. A complex distribution of the negative through various indefinite and pre-verbal positions, of varying degrees of optionality. It does not have the affective character of negative inversion, but is strongly marked as non-standard, and therefore carries social information.

In the ordering of these rules, it is necessary for negative inversion to occur first, since it blocks negative attraction. In SLE, we get Scarcely will anyone...

(383) NEGINVERT (optional)

$$\begin{array}{llllll} \text{NP} - & \begin{bmatrix} +\text{T} \\ +\text{A} \end{bmatrix} - & [+\text{neg}] & & & \\ 1 & 2 & 3 & \rightarrow & 3 \quad 2 & 1 \end{array}$$

SLE condition: 3] Adv

NNE condition: 1 [Indef

The symbols [and] indicate "contains" and "is contained in" or "is dominated by". [+A] is an element of the type marker, here duplicated along with tense in pre-verbal position by a previous transformation; it signifies "affective". Normally the Indef is the first element of an NNE NP; it is not clear if this is necessary. Note that a later transformation can move the SLE adverb to absolute first position, ahead of sentence modifiers: *Then scarcely will anyone attempt*... → *Scarcely, then, will anyone attempt*... This is not possible in NNE, where the negative + tense marker seem indissolubly linked.

(384) NEGATTRAC (obligatory)

Indef - X - [+neg]
1 2 3 → 3 1 2

Various special conditions have been indicated in 3.6.1 for verbs and other items which contain implicit [+neg]. There are no clear limitations on X. Just as negatives are transported right without any clear-cut limit, so it may be possible to move to an indefinite which is located well to the left. This rule applies to all dialects.

(385) NEGTRANSPORT (optional)

[+neg] - X - Indef   X ⊦ Indef
1 2 3 → 2 1 3

For SLE only.

(386) NEGCONCORD

[+neg] - X - Y
1 2 3 → 1 2 1 + 3

Does not apply to SLE or SCE

If Y = [+T], *does not apply to* WNS_1
if X [#, *does not apply to* WNS_2
otherwise optional

If Y = Indef, if X ⊦ #, *obligatory for NNE*
otherwise optional

These rules account for the major outlines of the data presented, and assemble the sub-rules for various dialects into a single over-all pattern. The ordering of (385) in relation to (384) is not fixed. Once (384) has applied, (385) is vacuous, since X is then Indef + Y. If (385) were to come first, (384) would reverse its effect. The present ordering is thus the most efficient. To illustrate the operation of the rules, it may be helpful to show the derivation of several of the observed sentences from the point before (383) to the surface structure.

A Indef+body - $\begin{matrix}\text{have}\\ \text{[+T]}\end{matrix}$ - Neg - ever - ed + think - about - pick+ing up - Indef+thing

(383) → Neg - $\begin{matrix}\text{have}\\ \text{[+T]}\end{matrix}$ - Indef+body - ever - ed + think - about - pick+ing up - Indef+thing

(386) → Neg - $\begin{matrix}\text{have}\\ \text{[+T]}\end{matrix}$ - [+neg]+Indef+body - [+neg]+ever - ed + think - about - pick+ing up - [+neg]+Indef+thing

→ Ain't nobody never
thought about pickin' up nothin'

Since this sentence was spoken by an adult, (386) was not obligatory, and it did not in fact apply to _ever_. The result was _Ain't nobody ever thought about pickin' up nothin'_.

B She - $\begin{matrix}\text{might}\\ \text{[+T]}\end{matrix}$ - Neg - ever - get - him - Indef+time

(386) → [+neg]+ever - get - him - [+neg]+Indef +time

→ She might not never get him no time.

C When it rain,
Indef+body - [+T] - Neg - know - # - it - $\begin{bmatrix}\text{+past}\\ \text{+T}\end{bmatrix}$

(384)→ Neg - Indef+body - [+T] - know - # - it - $\begin{bmatrix}\text{+past}\\ \text{+T}\end{bmatrix}$

(386)→ Neg - Indef+body - $\begin{bmatrix}\text{+T}\\ \text{+neg}\end{bmatrix}$ - know - # - it - $\begin{bmatrix}\text{+past}\\ \text{+T}\\ \text{+neg}\end{bmatrix}$

→ nobody don't know it didn't.

3.7 Questions

The following discussion of questions in NNE will be fairly circumscribed. The data that we have on hand is not as extensive as that dealing with negatives, or the copula, and we did not make questions a major focus of our attention. In single interviews, one does not as a rule obtain very many questions; in the double interviews conducted by John Lewis later in the series, there were more. In the group sessions, the greatest number of questions occurred in the card games which "preceded" the session itself. We were particularly fortunate in that members tended to cheat at cards, and exchanged quite a few questions in challenging each other. In one of the first adolescent group sessions, the Cobras were playing blackjack. We find in the first few pages:

(387) One more hand?...Didn't I call it?...Hey Derek man, I'm not goin' for that. You know that? / Go for what, man? Whatcha talkin 'bout, baby?...See that now? You can't take none...Awww man, what is y'all talkin' about, man? ...Y'all callin' me a cheater, now. Right?...C'mon, man! Whatcha doin'? / This the last hand./ Whatchyou talkin' about? This the beginnin' of the hand! / Eh! Whatchyou doin', man? Y'all gave me some wrong cards, man........ Hey, he took my nine? / M-hm. Why don't you use it like a man, punk? .. Ain't no pretty thing [chuckle]. ..You don't wanna do that, do you?...Where the other card at?..Where the ace and - uh - where the other card I gave you?...You wanna snow or hit?

These are simply the questions in the first few minutes of tape, as the members faced each other across the card table. Even in excited group sessions of the sort cited throughout this report, we do not find as many questions concentrated as in card games.

As we examine this particular collection of questions, we note that there are quite a few forms which give us very little information on the position of the tense marker, which is the crucial problem in question syntax. In our grammatical searching, we paid particular attention to those sentences which gave us full information, and did not keep accountable records of questions such as You know that? Y'dig? You wanna snow or hit? Over a limited portion of the data, we traced the forms of WH- questions and yes-no questions, and particularly yes-no questions embedded in other sentences. In the following discussion we will draw upon this material for a brief survey of the question problem, and provide some tentative conclusions. A brief examination of the material given above will indicate that where there is full information on the tense marker, it follows the SE pattern--at least in simple questions.

But there are a great many indeterminate cases, as a result of several of the processes discussed in previous sections: consonant cluster simplification, copula deletion, and the deletion of other members of the auxiliary. In embedded questions, we will see that NNE does follow a path of its own, or at least goes further along non-standard paths than others have done.

3.7.1. Yes-no questions. There are a great many yes-no questions where the tense-marker and auxiliary simply do not appear. One of the commonest expressions among peer group members is y'unnerstan'? We also hear y'know? y'dig? As in any sample of colloquial speech, a literal counting of questions will be flooded with a great many of these.

These examples are sometimes referred to as do-deletion, which implies that they underwent the flip-flop rule, then received do-support for the tense marker, and afterwards had the do removed. There are of course two other possibilities.

a. Do-support is never provided, and the isolated tense marker simply disappears like any unsupported abstraction.

b. The flip-flop rule is never applied. These are simple additions of a question intonation to a declarative sentence.

The second possibility appears the most unlikely, although it is frequently cited. The addition of a rising intonation in English does not have the same meaning as the use of the flip-flop rule or the substitution of a WH-form. A citation from discourse analysis, brought to our attention by Emmanuel Schegloff, provides some convincing evidence on this point. A radio interviewer asked a why-question of a telephone caller, who responded, "Why?" with a rising intonation. As all native speakers of English realize, this was not a question directed back at the interviewer; it was a quotation of the original question which preserved for him the right to continue. If he had answered "Why?" with a falling intonation, this would have meant that it was the other person's turn to talk. In other words, WH-questions with rising intonations are requests for confirmation, not questions of the item to which the WH- is attached. Similarly, a yes-no question of the form "You're going home?" with a rising intonation is a request for confirmation or rejection of the statement--the intonation places quotation marks around the statement. Normal yes-no questions, with or without a rising intonation, utilize the flip-flop rule to question the truth or falsity of the statement: "Are you going home?" For these and other reasons, we believe that many of the questions without an apparent tense marker did undergo the reversal of tense marker and subject which is the basic mechanism of a question in SE. But that is not necessarily the case with NNE, which may have a different set of rules. We therefore have to cope with the large number of indeterminate cases and see what the basic mechanism is from our interpretation of the clear cases. We find many clear cases of the flip-flop rule operating in NNE.

(388) Is that a shock, or is it not? [13, Cobras, #493]

(389) Is you down? Are you down? [14, Jets, #497]

(390) Do you have some? do you? do you? [13, Cobras, #493]

Altogether our limited sample of the grammatical searching produced 104 such questions, with forms of *be*$_1$ (34), *do* (39) and modals (28). But we cannot state at the moment what was the total population of utterances against which this group can be cited, for the reasons given above. There are a very large number of utterances which do not show the flip-flop rule, but those which are requests for confirmation are not easy to distinguish from those which question the content of the utterance directly; an even larger number may be merely checking for feed-back--retaining phatic communion with the listeners. For better information, it is necessary to look to WH-questions.

3.7.2. *WH-questions*. Once a WH-form has been attached to a noun phrase or adverbial, and brought to the front of the sentence, we are plainly dealing with a question. If the question has superimposed upon it a rising intonation, we may conclude that it is being quoted rather than used, but this is indeed rare in our materials.

The ambiguous cases are still quite numerous with WH-questions, for one can easily claim *do*-deletion (or failure of *do*-support) in the following:

(391) What I need, a 6 or a 5, right? [15, Cobras, #477]

(392) And *why* he do that? Every time somebody fuck with me, why he do it? [16, Jets, #560]

(393) Why they listen to me? [13, T-Birds, #375]

(394) How it ta(ste)? [15, Cobras, #477]

Even when the *do*-form appears in a question from the interviewer, it is possible for it to be deleted in an echo.

(395) [What kind of things do you do with your father?
What kind of things I do with him? [16, Jets, #667]

A certain number of questions occur which are not in the standard, inverted form, nor ambiguous like (391-395), but are clearly framed with the tense marker after the subject.

(396) So why you didn't go to school? [26, N.J., #616]

(397) Why you don't like him? [rpt] [26, N.J., #620]
(398) How I just cheated? [13, T-Birds, #1-6]
(399) Why I don't need no grease? [13, Jets, #604]
(400) Why I can't play? [12, overheard at 113th St. playground]

On the other hand, there is no shortage of standard WH-questions, with the tense marker before the subject.

(401) Why can't you get--get your motherfuckin'-- [15, Jets, #572]

If we re-examine the extracts in (387), we can classify the WH-questions there according to the information they yield on the position of the tense marker.

WH-[+T]-NP: standard inversion

what is y'all talkin' about, man?
Why don't you use it like a man, punk?

WH - NP: no information

Whatcha talkin 'bout, baby?
Whatcha doin'?
Whatchyou *talkin*' about?
Whatchyou doin', man?
Where the other card at?
Where the ace and - uh - where the other card I gave you?

Thus we see that six examples give no direct information, through the operations of contraction and deletion of *is* and *are*, and only two preserve this information. The first of these is emphatic, the second negative. There are no examples of WH - NP - [+T]. Note that the semi-fixed form *Whatchyou* [wʌču] is common in WNS as a result of morphological condensation which removes *are* and then palatalizes the -*t* before the y- of *you*. In WNS we do not consider the possibility of an underlying **What you are doing*? But we must consider this as a possibility in NNE, in the light of (396-400).

Sometimes the juxtaposition of two variants makes it clear that the deleted element was in a given place.

(402) What is they goin' fight for? what they goin' fight for? [14, Jets, #599]

Of the many examples of intimate variation of this sort, the overwhelming majority show the full form as the first variant, and the deleted form as the second. Here we can safely infer that the order of the first is the order of the second in the underlying structure. We might draw the same inference from the position of *what is y'all talkin' about*? above.

Our semi-quantitative study of WH-questions provides us with some insight into the frequency of the flip-flop rule in NNE. Considering the regular verb first, which requires *do*-support for the tense marker in SE, we find:

WH - [+T] - NP

do	13	don't	17
did	12	didn't	

WH - NP - [+T]

don't	2
said (2) had lost (2) kept looked wanted	8

WH - NP

present contexts	35
past contexts	10

One thing which is immediately apparent is that the position of *don't*, etc. after the subject cannot be the result of a late transformation which first provides *do* support in the standard position, and then re-reverses positions again. If that were the case, then we would get *do* and *did* in positions comparable to (397), (399), and (400). We do not, and we can conclude that in a certain number of cases of WH - NP, the tense marker was preserved in the original position and then lost through phonological processes--for the past--or simply never registered in the present. It will be necessary, then, to examine the 45 zero types to see how many of them could have been derived from WH - NP - [+T] forms.

In the case of the past contexts, eight of the ten verbs were ambiguous--*put*, *get*, *bust*, etc.--and may or may not have carried a tense marker. Only two of them plainly do not do so--*How you see 'em?* implies the deletion of a past tense marker somewhere. But the other eight may well be examples of the non-inverted order. In the 35 cases of the present contexts, a certain number may have in fact been non-inverted, but since third singular -*s* rarely occurs, we do not have as many clear cases as the past shows. It is possible, at the utmost, that all 35 were non-inverted, which yields a majority for the non-standard form; in the past, the same logic would yield 16 non-inverted against 14 inverted forms.

However, the evidence of *don't* suggests that most of the zero forms are in fact inverted WH - [+T] - NP types, for only two out of nineteen negatives were non-inverted. When we turn to the modals, we find that inversion is normal. Only one out of 34 questions with modals showed the non-standard WH - NP-[+T] form. Two cases of questions with *have* also showed the standard inversion.

Finally, we have a variety of morphological forms involved with finite forms of the verb *be*$_1$. For past tense *was*, there were 15 standard inverted questions, and 4 non-inverted. Two cases of *am* were non-inverted: *What I'm thinkin' of*? The four cases of *are* which were actually in the surface question were all inverted in standard form: it seems likely that most of the non-inverted *are*'s would be deleted. As far as *is* is concerned, we are dealing with a great variety of fixed forms such as *Wha's*, and the tag *is it*? Altogether, 50 questions with *is* might be considered part of such frequent semi-idiomatic constructions. There were only five other cases of inverted *is*, two non-inverted, and ten zero forms.

Thus as a whole, the evidence of *be*$_1$ points to about 25 - 30 °/o of NNE WH-questions following a non-standard pattern without inversion of the tense marker. The modals are more solidly in the standard pattern. It must be remembered that we are dealing with the central core of the vernacular NNE culture here...very little of this data can be considered subject to "dialect mixture". In our memory tests (3.9), the evidence confirmed the notion that the basic pattern for direct questions is WH - [+T] - NP--the flip-flop rule applies in the same way as SE, although there is a sizeable amount of variation in the application of the rule. For SE, there is no question that the flip-flop rule with questions is a categorical (Type I) rule; for NNE, it is variable, Type III. As we examine the data on hand, it appears that the inversion rule is subject to a great deal of individual variation; some apply inversion consistently with WH-questions, some variably, and some consistently preserve the non-inverted order.

3.7.3. *Embedded questions*. The situation with embedded questions is quite the opposite of that which prevails with direct questions. We find a very large number of sentences in which the inverted order is used, while SE uses the non-inverted order.

Yes-no questions. In SE, yes-no questions are usually embedded with an *if* or *whether* complementizer, and the order of the embedded sentence is NP - [+T]. There are two possible routes to arrive at this result: in one, the question shows a flip-flop, and this is re-reversed when it is inserted into another sentence. In the other approach, the presence of a complementizer blocks the application of the flip-flop. In any case, SE has complementary ways of registering the presence of an abstract Q in the underlying sentence. In direct questions, inverted order; in indirect questions, the presence of an _if_ or _whether_. In the two-transformation approach, there will be a rule for inversion (actually applying more generally than shown here) and a second rule which places the complementizer where appropriate and re-inverts the order of the tense marker.

(403) Q-INVERSION

[+Q] - X - NP - [+T]

1 2 3 4 → 2 4 3

(404) Q-EMBEDDING

$\underset{[+Q]}{V}$ - X - # - Y - [+T] - NP

1 2 3 4 5 6 → 1 2 $(\text{if})_1$ 4 6 5

Cond. 1: Y ⊢ WH

The X term in (403) may include a WH-attachment. Without (403) applying, we get _What he did!_ With (403), the result is _What did he do?_ If X contains no WH-attachment, then (403) gives _Did he do it?_ When a verb such as _ask_, _wonder_, or _inquire_, containing [+Q] precedes the embedded sentence, the effect of (403) is reversed, and we get _I asked if he did it_ or simply _I asked what he did_. The complementizer _whether_ sometimes appears in place of _if_, though it is completely unknown in NNE.

A single transformation to achieve the same purpose would apply after the transformational cycle:

(405) Q-DISPOSAL

X - # - [+Q] - Y - NP - [+T]

1 2 3 4 5 6

Cond. _A_: if X[V, Y⊢WH- → 1 2 if 4 5 6

otherwise → 1 2 4 6 5

There is considerable evidence to show that NNE does not have (404). In (405), Condition _A_ will not be required, and the reduced (405) will in effect be (403). In the light of this situation, the (403)-(404) sequence seems preferable for SE and other dialects as well. The following show the NNE treatment of embedded yes-no questions:

(406) I ax him do he have a attribute. [12, T-Birds, L-6]

(407) You ask him can you play.. [12, Lame, #516]

(408) He should decide..is he able. [15, N.Y.C., #YH-31]

(409) Let me see could I think of some right away. [25, S.C., #774]

(410) So they they called my mother upstairs and asked her did she know the lady. [34, NYC, #894]

(411) ..and you run th'ough and see can you get - uh - th'ough them. [29, S.C., #766]

There is some latitude as to which verbs contain the [+Q] which permits the inverted form to follow. Know is used freely with if but is not as common with the NNE construction.

(412) You jus' know is the boy nose bleed. [13, T-Birds, #375]

An examination of our grammatical searching forms shows that this is the predominant construction in NNE. Table 3-27 shows the number of cases in which NNE group members and others used the inverted form without the complementizer, as against the number with the standard construction.

TABLE 3-27

INVERSION VS. COMPLEMENTIZER IN EMBEDDED YES-NO QUESTIONS FOR NNE GROUPS AND OTHERS

	STYLE	Tense inversion - [+T] - NP	Complementizer if - NP - [+T]
Thunderbirds	A	2	0
	B	11	4
Cobras	A	0	0
	B	5	6
Jets	A	1	0
	B	14	13
Oscar Bros.	A	1	0
	B	0	2
All NNE groups		29	25
Lames	B	0	4
Inwood	A	0	0
	B	0	6

It is perhaps too strong to say "predominant" in the light of the total figures given here, but there is other evidence to show that some embedded yes-no questions are categorically inverted without complementizer in NNE. In the memory tests (3.9) we find that certain sentences such as I asked Boot if he knew how to play basketball are repeated back instantly as I ax Boot did he know... and only some of the boys are capable of repeating the original sentence. It is quite possible that we have not yet formulated the conditions on (403-4) or (405) in such a way as to show the truly variable portions of the rule for NNE and the categorical portions. A rule comparable to the variable rules used in 3.2 and 3.4 will undoubtedly show an * at some point which registers the categorical nature of I asked did he...

Furthermore, we note that embedded yes-no questions are extraordinarily rare in group sessions, but when they do occur, they are always of the favored NNE form. There are only four such examples in our current data, but there are no opposing cases.

Embedded WH-questions. We do find embedded WH-questions which follow the standard pattern without inversion. Transformations (404) and (405) note that the if or whether is placed only if a WH- does not precede the tense marker. If it does, the effect of the (404) transformation is simply to change the order of NP and tense marker, and Condition A of (405) has no effect at all.

(410) I don't know how she caught me. [12, Jets, #637]

(411) I don't know what they're doin', but they're not hustlin'. [33, Va., #888]

(412) I didn't know where the strength came from. [57, N.C., #819]

We have a very sizeable number of embedded WH-questions where the order remains inverted, following transformation (403) without any additional conditions.

(413) I don't know how old are he. [11, N.Y.C., #423]

(414) I 'on' tell 'em how old are them sometime. [11, N.Y.C., #423]

(415) ..I don't know how did I do it. [15, Ala., #471]

(416) ..that's what's trumps. [15, Oscar Br., #584]

(417) I don't know what's his name. [16, Jets, #638]

(418) If my mother catch me, that's what's the problem gonna be. [16, Oscar Br., #559]

(419) Where did she get the coat from I don't know. [53, N.Y.C., #813]

(420) But how many kids you can see today, fifty years
old that can say that? [55, N.C., #816]

Even in the presence of strong hyper-Z correction, we find

(421) You mean how does he gets away? [11, Lame, #507]

We have every reason to believe that the non-standard inversion with WH questions embedded in other sentences is just as characteristic of NNE as embedded yes-no questions, although we do not have quantitative data at present. The fact that NNE speakers can preserve the inverted order in embedded yes-no questions is important in interpreting such sentences as

(422) I don't know how old my parents are, but I know
how old my sister. [11, N.Y.C., #367]

Although we normally would argue that parallel clauses have parallel construction, in this case it seems more likely that the underlying form is ..how old is my sister. Otherwise, this would be a unique case of deletion of final, necessarily stressed is, and as far as we can see, this is a categorical impossibility for NNE and SE speakers. But the deletion of is in this, the normal position for many of the vernacular speakers, is quite normal.

The conclusion of our investigation of questions is that NNE has the single transformation (403) which operates variably on direct questions. The grammar does not seem to have (404) for complementizer placement. A certain amount of variability in the order of embedded questions can be expected in the light of the variable application of (403), and need not be attributed to a second variable rule (404). This interpretation fits in with the results of the memory tests (3.9) and shows NNE grammar here as missing several of the complications of SE in its formal apparatus. It is reasonable to show NNE as not taking the additional step (404), as many WNS and even SCE speakers omit this transformation--at least with yes-no questions. Expressions such as I asked him could he go are common colloquial forms in the South--all of our informants agree on this point--and we hear them quite often in the casual speech of Northerners. Indeed, we find that occasional use of (403) without (404) occurs in our own speech, more often than we realized before carrying out this analysis. The difference between NNE and SE here is clearly a matter of ϕ, the frequency with which the rule (404) is applied. The presence of a WH-attachment triggers the rule categorically for WNS and SCE speakers, and will eventually appear in the rules as *WH__, but the syntactic operation upon embedded questions is in fact a variable one.

3.8 Some other syntactic variables of NNE

In the preceding sections, we have dealt with those major areas of NNE grammar and phonology which seemed most central to the grammatical system, and which are responsible for structural interference between NNE and SE. There are a great many other areas in NNE syntax and phonology which might be considered--which have intrinsic interest for linguists, and which might well be important for educators. In this section, we will do no more than indicate the existence of these areas for research, and then only for some of the more prominent issues. We hope that such indications will be useful for those doing further investigations of NNE; any one of the topics briefly considered in this section will raise many questions of great interest to linguistic theory, and enlarge our understanding of the relations between NNE and SE.

3.8.1. *Dummy it*. The first item which will be considered here requires some apology at first glance for its systematic position. It is merely the substitution of one formative for another, and as far as we know, has no further effects upon syntax. But it has considerable interest in its own right as a distinguishing feature of the fundamental vernacular, and as an indicator of the speakers' relation to NNE. Because of its miscellaneous character, it is perhaps appropriate to consider it here, and then examine a more connected series of NNE syntactic features. The item we are referring to is the use of dummy *it* where SE uses *there*.

Negro speakers will occasionally use *it* in environments which are quite natural to SE as well, but instead of the *it* referring anaphorically to a particular object, it is a general *it* referring to nothing at all.

(423) It's a school up there.. [29, Bronx, #812]

However, a great many other utterances are difficult to interpret from an SE point of view until one realizes that the *it* is a dummy element.

(424) It wasn't nothin' to do. [15, Chicago, #471]

(425) It's a plenty us--it's about a hundred o' us. [13, Chicago, #471]

(426) It was *all* them chickens back there... [13, Cobras, #477]

(427) It's very little to jumping rope, but hardly one way, you know. [61, N.J., #749]

(428) It was some verses to it. [35, S.C., #729]

(429) It wasn't no way for them to get up. [35, S.C., #729]

(430) I know, it's gon' be many a day they ain't gonna give you that chance. [14, Jets, #599]

Normally, the dummy it represents an obligatory transformation from an underlying form NP is which is never realized. But with the passive, one can show an equivalence as in the two variants given in rapid succession below.

(431) It was missin' a pencil. Uh. A pencil was missin'. [13, T-Birds, #466]

When this use of dummy it combines with other features of NNE, the sentence can be hard for SE speakers to understand.

(432) It ain't that much--you know--people out in Long Island you be around with than it is in New York. [13, Jets, #605]

Distribution of dummy it. The use of dummy it is an excellent sociolinguistic marker of a speaker's distance from the NNE vernacular. It is quite parallel to the use of non-inverted yes-no embedding, or of be₂ in this respect. For some speakers, it for there is categorical, but in general it appears as a variable of a high degree of frequency. Table 3-28 shows this distribution.

TABLE 3-28

DUMMY it AND DUMMY there FOR NNE PEER GROUPS AND OTHERS

	STYLE	dummy it	dummy there	°/o it
T-Birds	A	5	0	100
	B	40	23	64
Cobras	A	11	6	65
	B	48	20	71
Jets	A	17	11	61
	B	115	39	74
Oscar Bros.	A	16	7	70
	B	30	16	65
Lames	B	19	45	30
Inwood	A	0	48	00
	B	5	39	11

Inspection of Table 3-28 shows that dummy it is comparable to the regular sociolinguistic variables which we have traced elsewhere. Except for the Thunderbirds in group style, with a very small number of cases, the figures range very closely around the two-thirds mark. But the lames are in a completely different category--below one-third use of dummy it (and this is quite irregular, varying with individuals). The Inwood group does in fact use a few examples of dummy it--whether this represents the influence of Negro speakers, or a genuine possibility in WNS, we do not know.

Other dummy elements in NNE. In addition to dummy it, NNE speakers also use they got for there are. It is possible that this represents the systematic plural of there is = it is.

(433) They got some bitches around here.[16, Jets, #560]

(434) They got the Aces, they got the... they got the... etc. [15, Chicago, #471]

The dummy here, or there is often used with go, where SE would have is or was as the verb.

(435) So Calvin had a rock, and we--us--y'know, here go a wall and a far away, here go a wall. [12, T-Birds, #365]

We find the use of this dummy element occasionally through all age levels of the NNE peer groups. In general, we have seen a number of differences between NNE and SE in relation to dummy elements, the verbs go and say--the type of purely formal manipulation of function words characteristic of grammatical machinery.

Finally, it is worth noting that the use of dummy it is apparently invisible to most white speakers. Even though they hear a great deal of Negro speech, and read a good deal of dialect literature, white speakers are as a rule completely unaware of this particular feature. One reason is that it is usually in obscure, reduced form; by rule it cannot bear stress, and the representation may be nothing but a short [ɪ]. In rapid speech, WNS speakers will also reduce there's, dropping the initial fricative, in some areas vocalizing the [r] and shortening the vowel. The result may be very close to the [ɪs] which represents NNE it's, and it may be quite easy for WNS speakers to re-interpret the NNE form as their own.

3.8.2. Pleonastic forms. A number of the characteristics of NNE discussed so far have represented the elimination of redundancies and pleonasms that we find in SE: is + ing, or have + ed, for example. There are also many cases where NNE uses several forms where SE uses one. The process of negative concord achieves massive pleonasm, and double modals seem to have this character in some cases. There are many other features of NNE which are plainly pleonastic; most of them are general characteristics of Southern colloquial English, according to our informants.

And plus. The word plus is being used for and quite frequently in SCE presently, and it also occurs in NNE. It is extremely common to find both and and plus used together.

(436) And plus I bought me some spinach and rice... [15, Jets, #491]

Or either. The comparable disjunction is the combination of or and either--more common, perhaps, than and plus.

(437) ..or either, we all say "Not it! Not it!" [11, N.Y.C.,#422]

(438) he's high, or either messed up. [15, N.Y.C.,YH-41]

(439) When you're hurryin' up or either dancin'.. [14, N.C., YH-2]

Adverbs of place. It is a well known feature of Southern Mountain speech that place adverbials are strung out in long sequences where other dialects would use one or perhaps two. In our materials we find

(440) I wanna get down back on that Seelow. [13, Cobras, #488]

(441) So they was gonna leave right back. [55, N.C., #232]

(442) ...you won't go get back into any more trouble. [15, N.Y.C., #YH-41]

(443) I came on back out. [13, Jets, #605]

Approximators. There are many ways of expressing that something is close to, or almost at a certain figure in NNE speech. It is possible that some of these features are related to the vernacular attitude towards precision and specification in general.

(444) So he'll bring in almost close to two hundred a week. [15, N.Y.C., #YH31]

(445) ...and from in Brooklyn I worked there round about a year. [15, N.Y.C., #YH41]

Other adverbs. One can sense the same type of operation in such duplicated forms as the following:

(446) But still yet, it's no reason for the kids to suffer.
[27, N.Y.C., #732]

(447) Perhaps maybe if I was brought up as white..
[27, N.Y.C., #732]

Only but. In some ways parallel to *and but*, we find *only but* used as a preposition, and *only unless* as a conjunction.

(448) I didn't play wit' only but Wayne and Tyrone.
[11, T-Birds,#516]

(449) [Some of 'em live in this building?]
No... only but José. [11, T-Birds, #516]

(450) Only unless we got some joints. [15, Cobras, #652]

We also have *but except* as a similar pleonasm.

(451) Everybody's getting caught but except me and Tyler.
[14, Jets, #624]

3.8.3. *Adverbial relatives and adverbial hypostasis*. One of the most common non-standard marks of NNE, and one which has become particularly well known recently, is the use of *at* in relatives and questions with *where*.

(452) The dent is the place where you res' at when you get caught. [12, T-Birds, #365]

(453) Where you gonna hear this at? [15, N.C., #YH-2]

(454) ..right around the corner where I used to live at.
[15, N.Y.C.,#YH-41]

(455) Where you gon' be at? [15, Chicago, #471]

This pattern is not at all confined to NNE, but it has recently become one of the overt markers of non-standard Negro speech. Traditionally, it would be explained as a blend of *The dent is the place you rest at* and *The dent is the place where you rest*. The fact that it shows up in questions means that the mechanism of WH-attachment is involved. It would seem that there are two different modes of relativization and WH-attachment--one for noun phrases, the other for adverbials.

(456)*a* The dent is the place + you rest at the place →
b the dent is the place (that) the place you rest at
c → the dent is the place you rest at

(457)*a* The dent is $[\ X\ ]_{Loc}$ + you rest $[\text{at the place}]_{Loc}$ →
b the dent is $[X]_{Loc}$ + you rest WH-$[\text{at the place}]_{Loc}$ →
c the dent is $[X]_{Loc}$ WH-$[\text{at the place}]_{Loc}$ you rest →
d the dent is $[X]_{Loc}$ where you rest

The straightforward procedure of (456) brings the noun-phrase *the place* to the front of the embedded clause and eliminates it. The adverbial relativization of (457) attaches WH- to a higher node, the adverb of place. The matrix sentence has an abstract representation of place which may be zeroed out to yield *The dent is where you rest*. In NNE, we find that the WH- is being attached not to the higher node but to the noun phrase, leaving the *at* in place.

There are four adverbials which can be involved in this type of process:

place	WH- +	at the place	→	where
time	WH- +	at the time	→	when
manner	WH- +	$\left\{\begin{matrix}\text{in}\\ \text{by}\end{matrix}\right\}$ the way	→	how
reason	WH- +	for the reason	→	why

When relatives are formed with the noun phrases contained in adverbials of time and manner, the remaining preposition is usually deleted.

(458) I liked the way + he did it in the way →
I liked the way he did it in →
I liked the way he did it.

But reason adverbials are more like place, in that the remaining preposition can still stand in many cases.

(459) I liked the reason + he did it for the reason →
I liked the reason he did it for.

This being the case, we would expect that NNE would show forms with *for* parallel to *at*, if the analysis is correct. NNE does show such forms, and so does WNS.

(460) That's why you got your friends there for.
[15, Inwood, #687]

Another aspect of this process involves hypostasization of the abstract adverbial. It is possible to go from (457d) to The dent is the place where you rest. Here the abstract term the place is not identical to the locative phrase at the place in the sense that noun phrases must be identical in relativization. It is derived as a surface expression of the abstract category. Similarly we can get time when, way how, reason why. The exact conditions under which these forms can appear are not well known, but it is apparent that NNE differs from SE in this respect.

(461) ..and sometime I like the way how fast they go. [12, Venice, #V-55]

(462) She'll learn the way how to come. [55, N.C., #232]

There is also a use of like this way which seems to carry the same burden.

(463) I feel like this way. [14, Jets, #599]

(464) I'll tell it like this way. [25, Fla., #825]

(465) Don't never get like that way. [17, Oscar Bros.,#590]

Each of these forms offers a special challenge for the analyst, as long as we cannot specify the exact conditions under which hypostasization can take place in SE and in NNE. It seems acceptable to say in SE There's a way how to do this, but the following are clearly not SE:

(466) ..because the way how he act and carry hisself. [29, Ala., #883]

(467) They find out how the way you feel about it. [39, N.Y.C., #804]

(468) That's just the way how he can say that he wants some..That's just the way how they make friends.. That's just the way how he can say that he wants some. [11, Lame, #499]

3.8.4. Adverb placement. Comparatively little is known about the placement of adverbs in English syntax, and it is possible that the study of NNE will enrich our general knowledge considerably. There is a wide range of non-standard forms which apparently violate rules which we cannot yet specify. From our Southern informants, we gather that most of these are acceptable in colloquial white speech in the South. We will not attempt to analyze the examples given here, but present them as a topic for future research.

Even appears foregrounded in many non-standard ways.

(469) Even she had a cake and candy on the..table. [11, N.Y.C., #363]

(470) ..even a guy might pick up a garbage can.
[18, Queens, #300]

(471) I 'on' even think her birthday is yet.
[55, N.C., #232]

Mostly is moved to the pre-verbal position:

(472) Dat's what mostly we call 'em. [15, N.Y.C., #YH-31]

(473) We don't mostly use all them..words.
[14, N.C., #YH-2]

(474) I mostly live' all around there. [25, Ala., #893]

Almost and most follow mostly in being foregrounded to the left of SE positions. Here they are both in initial position, instead of being associated with the verb.

(475) Almost my life was lost. [15, Jets, #526]

(476) But most thing I did was take the orders.
[15, N.Y.C., #YH-41]

Certain approximators and quantifiers also tend to appear to the left of the SE positions.

(477) She's about a woman in her early forties.
[29, N.Y.C., #813]

(478) I lived here aroun' for 12 years. [15, Jets, #524]

It is apparent that all of these are leftward shifts compared to the standard position. Why this should be the case, and whether it can be reduced to regular rule, remains to be seen. We can now turn to the seemingly eccentric behavior of all. The standard kissin' me all over shows a foregrounding of all over:

(479) She started..kissin' all over me. [16, Jets, #560]

(480) This I all had to acquire from hearsay.
[53, N.Y.C., #861]

Here all moves left much as mostly does above. There is a more general use of all which is sometimes completely, sometimes very, in SE equivalents--a general intensifier that is not easy to translate into SE.

(481) We supposed to be all friends, 'n' shit.
[16, Jets, #614]

(482) But he act all stupid. [15, N.Y.C., #YH-41]

(483) I just might get hurt up all bad. [13, Jets, #605]

(484) I ..bust him all in the eye. [11, N.Y.C., #363]

It should be clear that the position of adverbs, and their rich development in NNE, will yield information about the syntax of English adverbs in general.

3.8.5. Specification and approximation. One of the most intriguing ways in which NNE can differ from SE is in the ways in which quantities are specified or approximated.

(485) [How long did you live there?]
..for about--...three or five years. [12, N.Y.C., #681]

A slightly older boy used the following construction.

(486) I got abou' over ten of 'em. [13, T-Birds, #375]

An adult also approximated in a way which is odd to SE:

(487) About two is in jail, now. [29, N.Y.C., #812]

These expressions do not occur often enough that we can categorize them as regularities or irregularities in NNE, or specify the kind of irregularity involved (see 3.5). But they do provoke the analyst to consider further what can be said and what cannot be said in SE or his own dialect.

There are many other topics which might be considered in this chapter: problems of count-noun vs. mass-noun assignment, of for-to embedding, of tense sequence, of proximate vs. obviate in come ~ go, bring ~ take. But the major topic which is left untouched is the comparative. We will not attempt to survey, even briefly, the problems involved here, except to state that they are of such a depth and complexity as to outweigh any other topic which we have treated. Sentences such as the following will only barely indicate the kind of complexity which we and NNE speakers must deal with in the comparative.

(488) 'Cause when you watchin' a game, you ain't gittin' that much fun than what you would really be playin' it. [13, Jets, #605]

(489) I have a better a'vantage to learn to play than watch. [rpt] [12, Jets, #637]

These sentences are part of a very rich crop of comparatives derived from answers to the question, "Would you rather watch a game or play one?"

Finally, we might consider the following sentence which contains many items we have dealt with so far: $\underline{be}_2$, two cases of dummy it, ain't, the copula...but the intricate problems of the comparative reflected here have not yet been touched by our analysis.

(490) It ain't that much--you know--people out in Long Island you be around with than it is in New York. [13, Jets, #605]

3.9 Memory tests

This section will deal with a series of repetition or "memory" tests which we developed after our major field work with the NNE peer groups was completed. These tests have a great deal of interest for grammatical theory, for they give us direct insight into the relations between underlying and surface structure in NNE, and the asymmetrical relations of perception and production for many NNE speakers. Furthermore, they give us some direct confirmation of the features we have characterized as "NNE" in the foregoing discussions as variable or constant elements of the underlying grammar. The data from these tests yield additional insights into the unresolved questions that have been raised, and enable us to correct several misapprensions on the details of the grammatical rules.

Despite the many advantages of repetition tests, we feel it necessary to enter a strong warning against the rapid adoption of such methods by those who wish to study the linguistic competence of Negro children without an accompanying study of the actual use of language by these children in favorable environments. Our repetition tests were developed after several years work with the peer groups that we tested; we were able to provide strong and controlled motivation for the task used in the tests; and we were able to interpret the results in the light of our knowledge of behavior and peer group relations. We believe that repetition tests have a place in a school testing program, and that they will yield a great deal of data which has never been tapped before. But under normal school testing conditions, such tests will suffer from the same ambiguities and misinterpretations which have characterized most testing programs; a full discussion of this problem is presented in 4.3 in our discussion of the social controls on language. It is quite possible that an uncritical use of repetition tests will lead to serious misconceptions about the status of certain rules in the children's grammars. As we will see, the intersection of the test situation and the rules can reverse some of the relations which prevail in actual speech.

3.9.0. Origin of the tests. In March, 1967, we were carrying out a series of supplementary interviews with eight-year-old boys in the Thunderbirds' project, 1390 Fifth Avenue. At the same time, we were developing our analysis of the copula deletion rule, as now reported in 3.4, and we wanted to construct some tape-recorded tests which would show the informants' reactions to the deletion of clause-final *is*. Mr. Robins therefore asked two eight-year-old boys to repeat back

(491) He's not as smart as he thinks he is.

After many trials, Mr. Robins gave up; he simply could not get this sentence repeated back in that form. As indicated briefly at the end of 3.8, the comparative poses great difficulties for NNE speakers, and this sentence structure simply was not available to this boy. It was returned as *He aint as*... *He not so smart as what he think he be*... and many other variants which indicated that NNE grammatical structure was intervening between perception and production.

Imitation, repetition, or shadowing tests have been explored in some detail as a means of discovering the grammatical competence of young children (Fraser, Bellugi and Brown 1963; Miller and Isard 1963). There has been some question as to whether children's ability to comprehend and repeat back sentences runs ahead of their ability to produce them; it seems clear that children can repeat back much longer sentences within their grammatical competence than outside of it, and that there will be changes in reproduction in the direction of the internalized grammatical rules. But this was considered primarily from the standpoint of "language learning" in early years. It was believed that children had learned most of adult syntax by the time they reached the ages we were dealing with. No one had investigated the kind of cross-dialectal patterns which we were now considering, where linguistically well-developed adolescents had internalized a consistant grammar distinct from the SE rules. We suspected that memory tests might give us useful information with children 10 to 12 years old, and possibly even 14 to 16 years old. Further explorations with eight-year-old children showed that sentences of the type (491) were indeed difficult for them to repeat back, but non-standard equivalents in NNE patterns came back without much difficulty.

3.9.1. *The first Thunderbird session*. Four Thunderbirds were gathered for a group session in April, 1967, which centered around memory tests. A list of twenty-five sentences was prepared which included the following.

a. Sentences with SE patterns which differed from NNE patterns we knew to be strongly entrenched, or even categorical. Example: *Nobody ever took an airplane, and none of us took a bus, either*.

b. Sentences with syntactic patterns which did not occur frequently, where we were not sure of the NNE rule, such as *William is a stupid fool and I know that's what he is*.

c. Long sentences which seemed to pose no grammatical problem, such as *John told Boo and Boo told Roger and then Roger told Ricky*.

MEMORY TEST FORM I
(For First Thunderbird Session)

1. One smart fella he felt smart.
2. William is a stupid fool/and I know that's what he is.
3. He didn't go anywhere with any of Boo's friends/but David's friend is with me all the time [and I found out if he did anything wrong.
4. John told Boo and Boo told Roger and then Roger told Ricky.
5. Bugs' black blood (2 times).
6. Money isn't going to the center anymore, is he?
7. I asked Alvin if he knows how to play basketball, [and he said he did]
8. She went to the store to buy some sugar to make a cake for Boo's birthday.
9. Roger doesn't know what Boo always said to Money.
10. Nobody ever took an airplane, and none of us took a bus, either.
11. She sits and shits by the seashore.
12. What Larry is is the smartest one, [but he doesn't seem to know all the answers I do.
13. I haven't taken a bath for a month, but I done pissed last night.
14. Besides, he can always kick her in the teeth if he wants to.

15. Money, who is 11, can't spit as far as Boo can.
16. He will eat more potato chips than I will.
17. Calvin useta would play cards with Roger,/but now he'd rather play with the roaches [all the time]
18. She slits the sheets; the sheets are slit by her.
19. He knows there's a difference between them, [but he doesn't know exactly what it is].
20. Let's find out if Boo lives on a hundred and fifteenth street.
21. A box of biscuits, a box of mixed biscuits, and a biscuit mixer.
22. You guys can usually find some women.
23. Why do you look like you ran into a cement mixer, Mr. Jones?
24. Nobody saw it and nobody heard it.
25. The more he farts, the worse it smells.

d. Tongue twisters, such as Bugs' black blood.

e. Sentences of natural interest, containing taboo words, general insults, such as She sits and shits by the seashore; Money, who is 11, can't spit as far as Boo can; The more he farts, the worse it smells. For all sentence types, the names of the Thunderbirds themselves were used.

We wished to provide the maximum motivation to perform the tasks required for sentence types a, b and c and e accomplished the purpose of raising the interest level and departing as much as possible from a school situation. The tongue twisters helped to draw attention away from the grammatical features being studied. Further motivation was provided by a betting system. The sentences were spoken by one staff member, and one Thunderbird attempted to repeat. Each effort was judged by another staff member. Successful repetition was a win, unsuccessful was a loss, and one nickel exchanged hands each time. The Thunderbirds each operated with a stack of ten nickels provided by us at the outset. Before the staff member gave his judgment aloud, the other Thunderbirds checked off their own judgments on a chart. There were no challenges to the judgment of the staff member after he made his decision.

Results. Our expectations were fulfilled by the results of this first memory test: categorical NNE patterns were imposed upon the SE sentences, whereas variable NNE patterns were not. There was no problem of length: long, unproblematical sentences were repeated back easily. What was most impressive was the way in which certain SE sentences were understood and repeated back instantly in NNE form--a process of considerable significance for linguistic theory. We will present the main impact of these results under headings which pertain to the grammatical feature being studied: in many cases, actual quotations from the responses will yield the clearest view of what is taking place beneath the surface productions. Boot, the verbal leader of the Thunderbirds (see 4.1) went through the entire series, as did Money, his less verbal and younger follower, so that quotations will be mostly from these two. No attempt was made to achieve completeness or comparability in this exploratory session.

(1) Negative concord. The negative was regularly distributed to all indefinites within the clause, as we would expect from 3.6, but it was not so regular to sentence-modifying indefinites outside the clause. This pattern fits the data of actual speech quite well, since the categorical rule does not extend to S, either.

SE-10: Nobody ever took an airplane, and none of us took a bus, either.
Boot: N-N-Nobody never took a airplane, none of us took a bus, neither.
Money: None of us never took an airplane, and none of - take - none of us never take a bus, either.
David: Any of - say it again, please. [rpt]. None of - any of didn't take a airplane and none us - say it again. [rpt]. None of us took a airplane, and none of us took a plane, either--bus, either.

There are other examples to show that the negative element is transferred to ever most of the time, and only occasionally to S, either. David is having a lot of trouble: his negative concord rules seem to have been completely disrupted at first, but the final version was good NNE. The rapid repetition of Boot and Money was more typical. Note that a~an is clearly not an indefinite.

There was no tendency to transfer the negative to preverbal position in SE-24: Nobody saw it and nobody heard it.

(2) The copula and third-singular -s. There seemed to be little difficulty in repeating back the copula, which fits in with the findings of 3.4. This item is readily available to NNE speakers. Responses to SE-2 William is a stupid fool and I know that's what he is regularly preserved the is's in one form or another. Third singular -s was preserved quite often, which indicates that the problem for NNE speakers is not in producing the inflection, but knowing where it goes. Given the model, they can imitate it with some success.

SE-11: She sits and shits by the seashore.
Boot: She--she sits and s'its by the ssseasaw--shore.(LLL). She sits and sits by the ss-seasaw--sh(LL)shore. No! She sits and sits by the sea--shore.
Money: She sits and shit' by the seashore. (LLLL)

Even with tongue-twisters such as this or SE-18 She slits the sheets; the sheets are slit by her, the difficulty in articulation rarely interfered with the -s in plural or third singular. An easier sentence such as SE-25: The more he farts, the worse it smells showed no problems with -s, even though it was broken up by a great deal of laughter. The symbol (LL..) indicates the presence of laughter above.

(3) WH-attraction in embedded sentences. SE-2 posed considerable difficulties: the formation of a nominal seems to be subject to various eccentricities which are independent of the question raised above (3.7) concerning inversion of the tense marker. It seems to be a matter of the adjustment of WH-placement.

SE-*2*: *William is a stupid fool, and I know that's what he is*.
Boot: William is a stupid fool, tha's what I know what he is.
Money: William is a stupid fool, and I know it what that is-- what he--say that again? [rpt] ...and I know that is he--what he is.

When the WH-clause stands as the subject, it violates one of the strong constraints on NNE and colloquial speech in general against complex subjects. The simplification is the usual development of a dependent pronoun.

SE-*12*: *What Larry is is the smartest one*.
Boot: Wh-what Larry is he is the smartest one.
David: What Larry i- What Larry is, he's the smartest one.

(4) Embedded yes-no questions. Here there was a very strong tendency to supply the basic NNE pattern of retaining the inverted order without a complementizer.

SE-*7*: *I asked Alvin if he knows how to play basketball*.
Boot: I ax Alvin do he know how to play basketball.
Money: I ax Alvin if--do he know how to play basketball.

On the other hand, a similar construction with the verb *find out* was handled without difficulty.

SE-*20*: Let's find out if Boo lives on a hundred and fifteenth street.
Boot: Let's find out i--if Boo live a hunnerd fifteen street.
Money: Let's find out if Boot live on a hundred fifteen street.
Larry: Let's find out if Boot live a hundred fifteen street.

Here the SE order was retained. The implication is that *find out* differs from *ask* in the absence of a [+Q] feature--a possibility which seems to be confirmed below. This sentence also shows a uniform deletion of third-singular -*s*: note that it occurs before a vowel. The contrast between this and the other cases noted above seems to confirm the logic on syllable division presented in 3.3.10. One of the main purposes of SE-*20* was to check the NNE form of *Boo live a hunnerd fifteen* against SE *Boo lives on a hundred and fifteenth street.* The *and* and the -*th* are regularly deleted, but the word *street* survived.

(5) Some marked Southernisms. In general, we find that lexical items which are clearly marked Southernisms tend to disappear in repetition tests. The equivalence of *done* and *have* are beautifully demonstrated in the following repetitions.

SE-*13*: *I haven't taken a bath for a month, but I done pissed last night*.
Boot: I haven't take a bath for a month, but I done piss' last night.
Money: I haven't taken a bath for a month, but I have pissed last night.
David: I haven't taken a bath la--since last month, but I ha' pissed tonight.

We find that the form *useta would* in SE-*17* *Calvin useta would play cards with Roger, but now he'd rather play with the roaches* was simplified to *useta* by Boot, but not by Money.

(6) Dummy *there* and *it*. We did not find any tendency to substitute dummy *it* for *there* in SE-*19*: *He knows there's a difference*...

(7) Effect of length. We did not find any difficulty with long sentences unless they contained grammatical problems. SE-*4*: *John told Boo and Boo told Roger and then Roger told Ricky* did not give trouble: the *then* was occasionally omitted. All of the sentences which were shorter than average were prepared with additional clauses to balance this factor: *I asked Alvin if he knows how to play basketball* [and he said he did]. These increments in length seemed to make no difference to the end result.

In summary, we found that NNE speakers distributed negatives in accordance with our expectations, although we did not anticipate that the effect would be as strong and as striking as it appeared. Copulas were not affected but the third-singular -*s* was. Complex syntactic forms were simplified to colloquial forms. The embedded yes-no questions followed the NNE rule if the verb contained a clearly marked [+Q]. Heavily marked lexical items were perceived and tended to be kept if they were standard, dropped if they were non-standard; but the grammatical apparatus of *if*, etc., was not so perceived and suffered rapid re-organization. The limited effect of length confirms the impression that we are dealing with problems of grammatical processing, not simple additive effects of memory.

The judgments of the four Thunderbirds did not follow any consistent pattern; they did not regularly perceive any one pattern in close conformity with SE or with NNE grammars.

3.9.2. *The second Thunderbird session*. Two weeks later, a second group session with eight Thunderbirds was convened. The linguistic material for the second memory tests was concentrated upon those items which had appeared be the most sensitive and most revealing: negative concord, embedded yes-no questions, WH-attachment, etc. The technique was modified considerably, and the nature of the material altered in the following ways.

Tongue twisters were eliminated, since concentration upon grammatical points did not seem to be a factor. Controls for length did not seem to be a vital point. But for each SE pattern, a comparable NNE pattern was entered, with slight lexical differences. Thus SE-8 I asked Alvin if he could go was matched with NNE-5: I asked Junior could he do it.

A new betting system was introduced in order to test the subjects' ability to reproduce the SE patterns under maximum stress with maximum motivation. While the main group of Thunderbirds held a session in one room, with the usual refreshments, one subject at a time was tested separately. The first ten sentences were read to him by the interviewer and he repeated each back once. Then he was awarded five, six or seven nickels on the basis of this over-all performance. For the remaining sentences, the following rules were in effect:

a. If the subject repeated the sentence correctly on the first trial, he won one nickel.

b. If he did not, the sentence was repeated again by the interviewer; if the subject's repetition was correct, it was judged a tie, and no money was exchanged.

c. If the second repetition was wrong, the interviewer then read the sentence again, contrasting the correct form with the subject's incorrect form:

> "You said, I ax Alvin could he go; but I said, I asked Alvin if he could go. Now, I asked Alvin if he could go"

If the subject repeated the sentence wrong on the third trial, and again on the fourth trial, he lost one nickel. The stack of nickels stood in front of each subject, and the sound of the nickels being paid is clearly audible on the tapes.

When the subject returned to the group session, he usually announced loudly how much he had won: winnings ranged from $0.75 to $1.50. Motivation was very strong.

Four of the subjects were tested by Mr. Cohen, and four by Mr. Labov. Results seemed to be equivalent in the two series. The non-standard and standard sentences were given in mixed order.

Results. The results of the second Thunderbirds session confirmed the first exploratory series, and added some information on individual differences among the Thunderbirds. Furthermore, it appeared that some of the grammatical patterns of NNE were even more compelling than had been assumed at first--for some subjects. A difference began to appear in the degree to which a speaker is bound by the rules of his own vernacular, or from a different point of view, the degree of abstraction of his perceptual processes. Some subjects tend to perceive surface details more than others.

The complete series of sentences were given to the first four subjects, and an abbreviated series of the multiple betting sequence to the second four.

(1) Negative concord. The word ever occurred in two sentences with initial negative indefinites, following the SE pattern. Three of the eight subjects shifted to never at some point. In the NNE sentences, no subject changed any of the never forms to ever. The force of negative concord is strongest in Boot and David.

SE-14: Nobody ever set at any of those desks, anyhow.
Boot-1: Nobody never sa--No[whitey] never sat at any o' tho' dess, anyhow.
-2: Nobody never sat any any o' tho' dess, anyhow.
-3: Nobody [əs·] ever sat at no desses, anyhow.

Considerable stress on the word ever was supplied by the interviewer in -2 and overt contrast in -3. Note that any, which normally escapes negative concord in SE repetitions, is converted to no after Boot succeeds, with great concentration, in removing the negative from ever. As we would expect, the S, anyhow does not show conversion to nohow.

David, on the other hand, has difficulty with any here.

David-1: Nobody ever sat in-in-in-in- none o'--say it again?
-2: Nobody never sat in none o' tho' desses anyhow.
-3: Nobody--aww! Nobody never ex-- Dawg!

Sentence SE-19 tested the SE equivalent of the sentence spoken by Speedy of the Cobras which has been cited several times in our discussion, and which here appears as NNE-19:

NNE-19: It ain't no cat can't get in no coop.

Boot had no trouble with this. But David did.

David-1 There ain't no cat that can't get coop.
-2 There ain't no cat that cat can't [ku·k]
-3 There ain't no cat that can't get in no [ku·k]

David's difficulty was not with the negative concord rule, but with it, which he perceived as there, and the general complexity of the sentence. Others have trouble with the NNE rule which moves the negative to the pre-verbal position in the next clause.

Larry F.-1: Ain't no cat get any coop.
-2: It ain't no cat could get in--no coop.

Here we see the fluctuation of *any*, and the equivalence of *could* and *can*. The negative concord rule for indefinites in the second clause is of course optional. Money has parallel problems with this NNE form.

Money-1: There ain't no cat that can get in any coop.
-2: There ain't no cat that can get any coop.
-3: There ain't no cat can get in no coop.
-4: It ain't no cat can't get in any coop--in--in--
-5: It ain't no cat can't get in any coop--get in--

Note that Money understood this sentence with the same meaning that it was originally intended, although he had trouble in reproducing it. If we now turn to the SE equivalent, we find that he shows the reverse confusion on the formal rules.

SE-19: There is no cat that can get in any coop.
Money-1: Is no cat could get in any coop.
-2: There's no cat that *can* get in any--that can't get in any coop.
-3: There's no cat that can get in any coop.

To sum up the situation on this extension of the negative concord rule to pre-verbal position in the following clause, we find that two of the eight subjects showed difficulty in preserving it, but the rest did not, and two subjects repeated the whole sentence perfectly without hesitation. But SE-19 did not produce much trouble, either. Only two of the eight changed *can* to *can't* here. Therefore it seems that the rule is not a universal one for NNE speakers, and yet is well enough entrenched to survive under the formal test situation and even appear in SE contexts.

Sentence SE-15 violated the fundamental negative attraction rule. It caused the most extraordinary confusion in seven of the eight subjects.

SE-15: Anybody doesn't sit there anymore, do they?
Boot-1: Anybody--Hey, you goin' too fas'!
-2: Any--I can't say it; I owe you a nickel.

David-1: Hunh?
-2: That don't sound right!

Money-1: Anybody-eh- What is that?
-2: Anybody ever sits there d-- a-ny more, do they?
-3: Anybody nev--ever sits there--

Money's solution to the problem posed by SE-*15* is to remove the negative element. Billy produced a comparable sentence: *Anybody ever sits there anymore, do they*? which has a special interest because it parallels the Midwest development noted in 3.6.

(2) Embedded yes-no questions. Four SE sentences explored the situation with embedded yes-no questions.

SE-*8*: *I asked Alvin if he could go*.
Boot: I asked Alvin could he--could he go.
Money: I as' Alvin if he can go.

Boot was the only one who had trouble in this initial repetition. But when the complementizer *whether* appears, the situation is even more difficult and affects others.

SE-12: *I asked Alvin whether he knows how to play basketball*.
Boot-1: I asked Alvin--I asked Alvin--I can't--I didn't quite hear you.
-2: I asked Alvin did he know how to play basketball.
-3: I asked Alvin whether--did he know how to play basketball.

Larry F.-1: I axt Alvin does he know how to play basketball.
-2 I axt Alvin does he know how to play basketball.

Here Larry F., who is less dialect-bound than Boot, shows the same problem. Note that when *whether* was given a great deal of stress by the interviewer, Boot inserted it--but it had no function as a complementizer, and the tense marker was still inverted as *did*.

Sentence SE-*13* was parallel to SE-8, and Boot showed the same pattern with it; with great emphasis, he repeated the SE pattern on the third attempt. But Larry L., who had no trouble with previous inversions, produced:

SE-13: *Let's ask Boo if Alvin lives on 115th St*.
Larry L.-1: Let's ask Boo does Alvin lives on 115th St.
-2: Let's ask Boo is Alvin lives on 115th St.
-3: Let's ask Boo is Alvin lives a hundred and fifteen street.

The transcription indicates the fact that Larry tried several expedients to solve the problem of SE-13, producing a hyper-Z and then turning his attention to the pronunciation of 115th St. Finally, we can note the problem-solving procedure of Billy in regard to SE-18:

SE-18: *Let's ask Alvin whether he knows the way to play stickball or not*.
Billy-1: Lexax Alvin if he know how to play stickball whe-whether or not.
-2: Lexax Alvin if he knows how to play stickball wh-whether or not.

The concentration upon the -s in knows indicates that Billy had not focused upon whether as a problem. When he does so, it is inserted in the wrong place, and does not do the job by itself: if is imported also.

Billy -3: Lexax Alvin if he whether--if he whether know how to play stickball or not.

When we examine the NNE equivalents, we find that there is complementary distribution. Of the four who had the complete series, David used the SE pattern for all SE sentences--and failed to use the NNE pattern for all the NNE sentences. Boot failed to repeat the SE pattern for all four SE sentences, and succeeded without trouble in repeating back the NNE sentences. Larry L. and Money encountered problems with at least one of the SE sentences, but none with the NNE patterns. Note that David is even more bound to NNE patterns than others for some features, but that he appears to have the SE rule in this particular case.

We have given the data on yes-no questions in some detail, because it illustrate the asymmetrical nature of the rule systems involved here. The place of whether is not well understood, but sentences with if are understood perfectly well by all NNE speakers. When Boot hears I asked Alvin if he knew... and repeats back instantly I ax Alvin did he know... it is clear that he has understood the abstract meaning

(492) $\text{I ask[+Past] - [[+Q] Alvin knows...]}_S$

Therefore Boot has those rules which enable him to de-code the SE form to at least this level of abstraction--in this case, he has not only (403) but also (404) as a rule of interpretation. It seems that Boot is more bound to NNE forms than others--possibly because his normal level of perception is at the abstract level of (492). His rules for producing speech do not include (404), and therefore he repeats back rapidly the NNE pattern with tense inversion. This asymmetrical model must be of the nature

$$\text{Perception: Input} \rightarrow (404) \rightarrow (403) \rightarrow$$

$$\text{Production: } \rightarrow (403) \rightarrow \text{Output}$$

(3) Embedded WH-questions. As far as the usual type of embedded WH-questions with most verbs, we saw no problem for our subjects in repeating back either the SE form, SE-11: I don't know why he said it or the NNE form NNE-11: I don't know why did he do it. But we also introduced questions with forms of the verb be_1 embedded.

NNE-6: I found out who car was it.
Boot: I found out who car--what it is.
David-1: I found out who car it was.
-2: I found out what car it w--
-3: I found out who car it is--
-4: I found out what c--who car it was.

NNE-4: What he got to do is he got to find out who car was it.
Boot-1: Say that again?
-2: What he got to do is he gots to find out who car it is--it is.
-3: What he got to do is that he hafta find out who car it is.

This result fitted in with our own feelings about the copula--that it does not obey the same WH-question rules as other verbs. NNE-4 and -6 are odd sentences, though they represent simple generalizations from NNE-11, and the reaction of David and Boot gives some indication of how odd these sentences are. Note that the NNE who possessive is repeated back, and the dependent pronoun he. The only sticking point is the use of tense inversion with the copula in embedded WH-questions.

(4) be$_1$ and be$_2$. Again we found little difficulty in repeating back the copula when it was contained in an SE sentence. The following sentences provided a framework in which be$_1$ is frequently replaced by be$_2$ in NNE:

SE-2: What he says is these are the guys he's with all the time.
SE-3: I don't want Junior to come because he's always fooling around.

Only one subject--David--inserted be$_2$ in these sentences, approximating our NNE equivalents:

NNE-2: What he say is these the guys he be with all the time.
NNE-3: I don't want Gary to come cause he always be messin' around.

Of the six boys who repeated back these sentences, no one replaced be$_2$ with be$_1$. This confirms our view that be$_2$ is never obligatory in NNE, but it has a very firm position.

(5) The possessive. Sentences SE-4 and -6 contain whose, and NNE-4 and -6 contain who. In two-thirds of the cases, whose was replaced by who; no one replaced who by whose. This seems to us a model of a categorical feature of NNE as it appears in a memory test. It must be observed that not all of the Thunderbirds are equally central or equally bound by the vernacular culture. Boot, David, Money and Larry L. are at the center of the group,

while Larry F., Ricky and Billy are full members, but not core members in the same sense (see 4.1). Del is in fact a lame who intrudes himself into our meetings as a relative of a member, but is not fully accepted. His relation to NNE is more marginal than the others (for a discussion of the internal structure of the peer group in relation to language, see 4.3).

Given the fact that the Thunderbirds are not uniform, and that they are in a testing situation which favors SE to a certain extent, we find that a strongly categorical feature of NNE will interfere with the SE pattern about 50 per cent of the time, or a little more. A variable feature, such as copula deletion, will have much less effect upon the repetition process. It should also be born in mind that there is some variation in rule systems within the peer group. For example, David was seen to be the only Thunderbird who repeated back the NNE embedded yes-no questions wrongly--with SE lack of inversion. When we turn to the records of grammatical searching, we find David quoted as saying:

(493) I don't know if he care or not.

If we subtract David, who is plainly different in regard to this rule, we see that the NNE reaction to embedded yes-no questions is the same as to whose--a categorical pattern where the SE form is repeated back correctly only half the time, and the NNE pattern is repeated without difficulty.

3.9.3. The Jets memory test. The most developed, and best controlled memory test was carried out with the group of Jets from the 200's block (see 4.1): eight adolescents from 14 to 16 years old. In the discussion so far, we have laid stress upon the qualitative data, and presented the detailed responses to show the type of interference which was taking place. In this sub-section we will present a quantitative view of the same process. Each of the eight subjects was handled in the same way, and the data gives us an over-all view of the responses of this adolescent group.

A Memory Test Form III was prepared with forty sentences. The SE and NNE patterns occurred in mixed order, concentrating somewhat more heavily upon the areas of greatest syntactic interest. The same betting procedure was used here as in the second Thunderbirds test. The first ten sentences were repeated once, an award of nickels was made, and the betting system used for sentences 11-40. The actual sentence list used is given on pages 324-5 below. Again, Mr. Cohen interviewed half the subjects, and Mr. Labov the other half. Seven of the eight Jets had been interviewed and tape-recorded before; one was a new member we had not known before.

Table 3-29 presents data on the number of correct repetitions in the Jets memory test by grammatical categories. For each category, the numbers of the sentences concerned are given in the first column, and the number of correct repetitions in the second.

(1) Negative concord. The sentences dealing with negative concord contain examples of _ever_ ~ _never_ and _any_ ~ _none_, as well as the sentence modifiers. It is clear that _ever_ has the greatest tendency to accept the negative concord. This is the only sub-category in which there are more correct repetitions of the NNE sentences than of the SE sentences. For _any_, the balance favors SE, with very few of SE _any's_ changed to _none_. As the previous discussion would lead us to expect, the sentence modifiers _anyhow_ and _either_ show a much smaller degree of negative concord than the adverbs contained within the clause.

We see that the process of negative concord is still active in the Jets repetitions, but it does not reflect the categorical nature of their speech performance. There is a strong hint here of phonological influence, for the difference between _ever_ and _never_ is much less than that between _any_ and _no_ or _none_. As we examine the quantitative results of the memory tests, it will be apparent that the presence of a well-attested morpheme, with phonetic substance, is an important factor. The pressure of SE can be felt more directly upon an item like _any_ or _ain't_ or _be_ than upon the presence or absence of an -_n_ in _an_, an -_ed_ in _liked_, or an _if_ or word order. There is no doubt about the negative concord rule in speech, and we have strong evidence for its operation here, but if we had only this data to inform us, our view of NNE would be limited. What we are seeing here is the cross-product of NNE, the test situation, and a past history of test situations in school.

Table 3-29 does not give us a complete view of the linguistic situation here; it is also necessary to consider the individual distribution of errors. This is tabulated on Table 3-30, showing the actual number of deviations from correct repetitions of that particular grammatical feature considered in that column. As the over-all totals show, the eight Jets seem to be divided into two groups. There are four individuals who show very little in the way of mistakes, and four who show quite a few. This is the case with negative concord in particular (although Laundro can be moved into the first group for all other categories). Stevie, Junior, Tommy and Turkey handle SE and NNE negatives equally well; Laundro and Tinker make quite a few mistakes with NNE, and Joseph and Kitfoot make errors with both.

It is worth noting here a few other characteristics of these individuals. The first three--Stevie, Junior and Tom-

MEMORY TEST - FORM III
(As applied 6/16/67 with Jets-200's group)

Single Repetition

1. What he got to do is he got to find out who car it was.
2. What he says is these are the guys he's with all the time.
3. I don't want Gary to come 'cause he always be messin' around.
4. I don't want Junior to come because he's always fooling around.
5. I don't know why did he do it.
6. None of us ever go there.
7. I asked Alvin if he could go.
8. He didn't pass some of his tests.
9. What he says is these the guys he be with all the time.
10. I asked Alvin whether he knows how to play basketball.

Multiple Betting:

Correct on 1st repetition = Win
Correct on 2nd repetition = Tie
Incorrect on 3rd and 4th repetition = Lose

11. Let's ask Boo if Alvin lives on 115th St.
12. Nobody ever sat at any of those desks, anyhow.
13. I asked Alvin do he know how to play ringalicoco.
14. Let's ask Boo do Tony live a hundred fifteen.
15. What Eric is is smarter than him.
16. Nobody never scratched none of those desses, nohow.
17. Let's ask Alvin whether he knows the way to play stickball or not.
18. There is no cat that can get in any coop.
19. Let's ask Rel do he know the way how to rap or not.
20. What Larry is he is smarter than her.
21. It ain't no cat can't get in no coop.
22. There isn't anyone here who can see it, and there isn't anyone here who can do it.
23. He didn't fail none of his tesses.
24. They ain't brung me the money, is they?
25. Junior can't spit the same far as Money can throw shit.
26. They'll be done got high, by the time I gets to the party.
27. I don't know whose book was stolen by those guys.
28. They must don't be very hip, because they act all stupid.
29. What I mean is that you're stupid.
30. Hey David, you like chicken best, or you like pork chops best?
31. Roger or either James had went to Larry and them house.
32. They haven't told me the answer yet, have they?

33. Hey, David, do you like chicken best, or do you like pork chops best?
34. I don't know who book got stole by them guys.
35. What I mean you stupid.
36. Either Roger or James had gone to Larry's and their house.
37. They mustn't be very hip, because they act altogether stupid.
38. None of us never play here neither.
39. I asked Junior could he do it.
40. Ain't anyone here who can see it; ain't anyone here who can do it.

TABLE 3-29

CORRECT REPETITION OF GRAMMATICAL CATEGORIES IN JETS-200's MEMORY TEST

	SE sentences		NNE sentences	
Grammatical feature	Nos.	Correct	Nos.	Correct
Negative concord				
SE ever ~ NNE never	6,12	8/16	38,13	11/16
SE any ~ NNE none	12,18,22, 22,40,40	42/47	13,21,21, 23	23/32
SE anyhow ~ NNE nohow	12	6/8	13	3/8
NNE neither			38	3/8
Embedded questions				
Yes-no				
SE if-NP-[+T] ~ NNE [+T]-NP	7,11	11/16	39,15	16/16
SE whether-NP-[+T] ~ NNE [+T]-NP	10,17	5/16	14,19	13/15
WH- NNE [+T]-NP			5	6/8
Possessive				
SE whose ~ NNE who	27	1/8	1,34	16/16
Copula				
SE NP is Pred ~NNE NP Pred	2,16	11/16	9,20	15/16
SE these are Pred ~ NNE these Pred	2	6/8	9	5/8
SE you are Pred ~ NNE you Pred	29	8/8	35	8/8
SE he's always ~ NNE he be always	4	7/8	3	4/8
Dummy it				
SE there ~ NNE it	18	7/7	21	2/8
SE there isn't ~ NNE Ø + ain't	22,22	13/16	40,40	14/16

TABLE 3-30

INDIVIDUAL ERRORS IN JETS MEMORY TEST

	NegConc		Yes-no Embedding		Copula		Possessive		Dummy *it*		Total	
	SE	NNE	SE	NNE	SE	NNE	SE	NNE	SE	NNE	SE	NNE
Stevie	1	-	-	-	1	2	1	-	-	-	3	2
Junior	-	1	-	-	1	1	-	-	-	-	1	2
Tommy	1	-	1	1	-	-	-	-	-	3	2	4
Turkey	1	1	2	-	3	1	1	-	-	-	7	2
Laundro	2	5	1	-	1	-	-	-	1	-	5	5
Tinker	2	5	4	-	4	1	1	-	1	1	12	7
Joseph	4	4	3	1	1	2	1	-	-	1	9	8
Kitfoot	5	5	4	-	4	1	1	-	1	1	15	7
											54	37

my are indisputably the verbal leaders of this section of the Jets. Their voices are heard prominently on any group session. Stevie talks very fast and continually; he is the group's best singer, and is well regarded by the 100's block because of his verbal abilities. His singing and verbal play is featured in several of our video tape recordings. In the same sessions, Tommy is heard sounding against others (see 4.2) at some length; he is generally regarded as good with his mouth. Junior talks a great deal in the group sessions accompanying the memory tests; his individual interview (a paired session) is remarkable for its penetration into a number of serious topics, and Junior's particular form of Socratic dialogue. In the memory tests group sessions, he distinguished himself by telling jokes--he seemed to know more than anyone else, and told them better.

In these memory tests, the verbal leaders excel~~l~~ in their ability to repeat back either dialect: the situation is just the reverse of that with the Thunderbirds, where the verbal leader is the most dialect bound. Whether or not this represents a natural development, or a particular characteristic of the individuals concerned, we cannot say. Stevie shows his pliability in many other ways. He was the only NNE member who did well on the Vernacular Correction Test--that is, he was able to correct SE terms to NNE in a formal situation. Secondly, we see that Stevie uses very different styles in group sessions and individual interviews. His style shift is truly phenomenal as compared to the group as a whole. For the forms of is:

	Stevie			All Jets		
	is	's	Ø	is	's	Ø
group	4	5	24	189	182	129
single	22	5	11	51	67	95

Stevie thus has the unusual ability to shift his linguistic performance to a point that escapes the limitations of any one dialect. Yet this ability is still limited: there is no change in his use of are, or dummy it, or any number of other features. As we have noted before, the copula deletion rule is one of the stylistic devices which NNE relies on most. Furthermore, it should be noted that in both group and single styles, Stevie's use of the negative concord rule is categorically NNE.

(2) Embedded questions. In contrast to the situation with the negative, we find that embedded yes-no questions show all the signs of categorical perception and production in the memory tests. An SE sentence with an if complementizer is not reproduced correctly in five out

of 16 cases (though note that not all failures to repeat correctly recorded here are conversions to the opposing pattern), and for *whether*, in eleven out of sixteen. On the other hand, the NNE forms are preserved almost intact. We have already seen that in speech, the *if*- construction does occur quite often--for the Jets, in 13 out of 27 cases in single interviews. This fits in well with the frequency of correct repetitions of the SE forms: 16 out of 32. We have noted that some individuals--like Boot or Money of the Thunderbirds--are bound to the NNE form, but others, in the same series of tests, are not. Why, then, do we find the NNE negative concord forms not as well reproduced as the embedded yes-no questions?

The answer must lie in the mechanism we have already given for the yes-no questions. The inverted form is already present in any production of *I asked Alvin if*... Therefore it cannot be difficult to perceive or reproduce, and it is apparently not overtly stigmatized. On the other hand, the incorporation of the negative into such indefinites as *any* is quite well perceived and has been stigmatized. We are contrasting (1) an additional grammatical process which is definitely not SE with (2) the absence of a grammatical process which is standard. The second can be accepted more readily than the first--or at least escape detection even in a formal test situation.

The emphasis may be wrongly laid here on the processes rather than the end result. If we examine all of the remaining categories, we find that there is a high degree of correct repetition of zero, deleted and missing forms; it is the marked forms in terms of phonetic substance which cause trouble. This simple fact is an important factor in any such contact situation where a subordinate language is in touch with a superordinate language.

(3) The copula. The principle mentioned above is borne out in the various forms of the copula. The NNE forms are zeros for *is* before predicate, for *are*, but not for *be*$_2$, and the correct repetitions of NNE forms are scaled accordingly. Only four out of the eight *be*$_2$'s were preserved, even though we have found it a constant feature of peer group speech.

We have a large number of *what I mean is*..., *what he is is* clauses. The SE forms are well reproduced, but a certain number disappear. The zero form of NNE, *What I mean you stupid*, is well preserved. Note that the *you stupid* construction is repeated better than *these are*--the fusion of the *are* with *you* in contraction is plainly an active process.

(4) The possessive. We have one sentence with SE

whose, and two with NNE who. Only one out of eight of the former was preserved, and all sixteen of the latter. This is plainly the type of categorical result which would be predicted by (1) the pattern of speech, which shows that there is no underlying -s in the possessive, and (2) the fact that the absence of the -s inflection is less easily perceived than the presence of a no in place of any.

(5) Dummy there and it. This seemingly isolated point emerges with the richest syntactic interest in the series of tests being studied here. The figures for dummy it show that in sentences 18 and 21, There is no... and It ain't no... it is the SE form which predominates. But in 22 and 40, There isn't anyone here vs. Ain't anyone here, the NNE does as well as the SE. On the face of it, the marked form it in 21 is not reproduced as well as the zero form in 40. However, the situation is not as clear cut as that.

We noted above in our discussion of negative inversion (3.6) that there seemed to be some speakers who analyzed Ain't nobody as It ain't nobody... In the repetitions of 21, It ain't no cat..., there were two speakers who substituted SE there, two who deleted the it, and one who did both. Those who said, There ain't no... (or They ain't no...) were plainly correcting an NNE mark. Those who deleted the it were performing the operation which makes it possible to analyze 40, Ain't anyone here who... as a parallel case of deleted it.

The conclusive evidence of this act of analysis is provided by Tinker. He made three changes in the sentences being considered here:

a. Changed SE There isn't to it ain't in 22.

b. Deleted the It in It ain't no cat... in 21.

c. Added an It to Ain't anybody here... in 40.

No more convincing demonstration could be provided that Tinker views negative inversion with ain't as an example of it-deletion, confirming the evidence provided by Speedy when he said, Ain't nobody could...

Returning to Table 3-30, we see that the distribution of errors across various categories gives us a great deal of information about the relations of the dialects. There is approximately an even exchange of errors with negative concord, and the copula. As far as yes-no questions is concerned, there are plainly three individuals who are bound to the NNE forms, categorically, and the situation is far from symmetrical; the possessive shows the same situation. Finally, the weight of repetitions lies on the SE side as far as dummy it is concerned.

We have not said anything so far about what a "correct" repetition is. No formal definition of correctness is given in our memory tests: the subjects are merely told to repeat back as closely as they can. It quickly becomes plain that phonological matters are not being considered, and it is the number and type of formatives that we are weighing. Of course in Table 3-29, there is no question of over-all correctness of a sentence--we are examining the data for the reproduction of particular grammatical forms.

Our over-all evaluation of the memory tests is positive. We are impressed with the quantity of data and the rapidity with which it is gathered. At the same time, the foregoing discussion should make it plain that there is no one-to-one relation between memory tests and the underlying grammatical pattern. A knowledge of the subjects' behavior in actual speech situations is essential in correct interpretation of these tests.[49]

3.9.4. The Inwood group. It was only possible to carry out memory tests with two members of the Inwood group, but the results indicated quite clearly the great difference between them and the NNE peer groups. It is simplest to report that between the two subjects, there were three incorrect repetitions out of 31 SE forms, using the same list as with the Jets. But for the NNE forms, there were 12 out of 28 incorrect repetitions--four times as many. An examination of the details of these two cases shows that the pattern fits in with that which would be predicted from the data on speech given in previous sections.

3.9.5. Morphological tests. We have noted in our discussion of consonant cluster simplification, that the clusters -sps, -sts, -sks are extremely difficult, or even impossible, for NNE speakers to pronounce. In the course of the second Thunderbirds memory tests, we examined the subjects' abilities to reproduce words like tests, ghosts, wasps, and so on.

The following data is from a series of exchanges with Boot and Money on this point. The tone of the conversation is didactic only on the surface: it was understood that the purpose was to repeat difficult words.

WL:	What do you call this?	Money:	ɵ dɛs
	What do you call this?		ə dɛs$^{k'}$
	What are two of these-- two what?		tu dɛsɨz

This is of course the normal plural, derived by the processes of consonant cluster simplification and epenthesis described in 3.2. Money clearly shows that a knowledge of the underlying form *desk* (with -*k* first deleted and then restored) is consistent with the plural [dɛsɨz]. Continuing from this point:

WL:	Two desks.	MONEY:	tu dɛs·ks
	⋮		
	Say *test*.		tɛst'
	And *two tests*.		ən tu tɛs·ts

With great effort, Money has now pronounced the -*sts* cluster after [ɛ].

WL:	Say it again.	MONEY:	ən tu tɛsts·ə̥s

This represents the first appearance of a voiceless vowel, rapid and unstressed, separating two clearly unvoiced *s*'s.

WL:	One *ghost*. Say *ghost*.	MONEY:	gosɨs$^{t'}$ go·st

The first utterance was an anticipatory attempt to produce a plural. Money corrects this to the singular form, with a final -*t*.

WL:	And two what?	MONEY:	gosɨz

Again Money gives the normal plural. He is now encouraged to try again for the SE form.

WL:	Say *two ghosts*... An' there's two..	MONEY:	gostsə̥s
	Ghosts.		gostsə̥sə̥sə̥s
	Let's try it. Ghosts.		gotsə̥sə̥sə̥s
	No. Let's try *toast*.		tost'
	OK. Two toasts is *toasts*.		tu tost ɪz tost'
	Toasts.		tostsə̥sə̥sə̥s

We went on to *lisp* and *lisps*, which gave even more trouble; instead of a final -p, -t began to appear. The same basic pattern as shown here appeared in exchanges with Boot.

WL:	Say *this is a desk*.. right?	BOOT:	d̥ɪs ɪz ə dɛs·$^{k'}$
	If there's two of them, that's two-- what?		dɛs·$^{k'}$
	Say *desks*.		dɛs·$^{k'}$
	Now try to say *desks*.		dɛsk·h
	Like D-E-S-K-S--*desks*.		dɛs·

Boot is plainly more bound by NNE patterns with clusters after front vowels than Money is. When we move on to back vowels, the situation is remarkably similar to that presented above, though by a somewhat different approach.

WL:	Ghost.	BOOT: gos·
	Ghosts.	gos:
	I'll say ghosts.	gos·t'
	Ghosts.	gos::t
	No. That's a tough one. Say toast.	tost'
	Toasts.	tosts$\underset{\circ}{^{\text{ə}}}s\underset{\circ}{^{\text{ə}}}$s
	Toasts.	tost'
	Toasts.	tos::

Here Boot shows the repetitive voiceless syllables only for one utterance before he retreats again to a long -s. But later on, dealing with mosque, we get

WL:	You know what a mosque is.	mask'
	Mosques.	mask$\underset{\circ}{^{\text{ə}}}s\underset{\circ}{^{\text{ə}}}$s
	Mosques.	mas:$\underset{\circ}{^{\text{ə}}}k\underset{\circ}{^{\text{ə}}}s\underset{\circ}{^{\text{ə}}}s\underset{\circ}{^{\text{ə}}}$s

The pattern is thus not confined to back rounded vowels. In fact, it appears after [ɪ].

WL:	Say lisp.	lɪsp
	Lisps.	lɪs$\underset{\circ}{^{\text{ə}}}s\underset{\circ}{^{\text{ə}}}$s
	Lisp.	lɪs·
	Lisp [lɪsp^{h}].	lɪs·p'
	Lisps.	lɪsp$\underset{\circ}{^{\text{ə}}}s\underset{\circ}{^{\text{ə}}}$s

This behavior of Boot and Money under the pressure of repetition tests (with monetary rewards) is of great interest, since a recursive rule seems to have been set into motion. Exactly how this interacts with the rule systems described in 3.4, and what rules are being set up, are not easy to determine; we are not dealing with a socially determined pattern of speech, but with the result of the speaker's immediate attempt to make sense out of two conflicting rule systems. It must be remembered that the normal plurals of test and ghost are [tɛsɨz] and [gosɨz], or sometimes [tɛstɨz] and [gostɨz], and these plurals are produced when the normal plurals are **rejected.** The following hypotheses are put forward.

After Boot and Money produce their normal plurals, following their own internalized rules to convert the abstract [+plural] into sounds, they are forced to turn their attention to the sounds that WL is producing. They hear two [s]'s, separated by a silence. The problem then is to interpret this sequence of sounds as representing some abstract pattern, and then set the rules in motion which will produce this surface result.

The sound in between the two *s*'s cannot be a normal epenthetic vowel, because then the universal and compelling voicing assimilation rule (15) (see p. 207) will convert the final [s] to [z]. But it is plainly not a [z]--anyone can hear that. In *ghosts* there is of course a [t], but that cannot be represented by the silence, since there is no position in NNE where a [t] appears between two *s*'s. Clusters of this sort are not allowed. Money's first effort to say [tɛsts], as a matter of fact, seems to have been rejected, since WL asked for a repetition. Boot never managed to produce such a cluster. Under pressure, then, a new hypothesis can be seen emerging.

The intervening silence is interpreted as a new kind of epenthetic vowel--a voiceless vowel. That being the case, the voicing assimilation rule may apply as normally, without converting the final [s] into a [z]. We then have

gost#Z	underlying form
gos#Z	(10) simplification of -sK clusters
gosə̥Z	(14') voiceless epenthetic vowel
gosə̥s	(15) voicing assimilation

Given the knowledge that there is a -*t* in this word, and a -*k* in *mosque*, Boot and Money react to the request for further repetitions by placing the consonant in various positions--before the first *s*, after the second *s*, with an epenthetic vowel of its own, etc. There is no regularity here...it may even appear between the two *s*'s now, because the cluster is broken up into CVC CVC.

Finally, we may ask why the epenthetic vowel and *s* is recursive. The form of the new (14') may be

$$(14') \qquad \# \rightarrow \begin{bmatrix}+\text{voc}\\ +\text{cen}\\ +\text{tense}\end{bmatrix} \Big/ \begin{bmatrix}+\text{strid}\\ +\text{tense}\end{bmatrix} \_\_ \ [+\text{cont}]\#\#$$

Eventually, such a rule might be condensed with the original (14) with α conventions. But note that in its present form, this rule creates the conditions for its own re-application. Given the demand for a plural, (14') adjusts to what is heard: (14') is at best a working hypothesis for NNE speakers--and one which does not work. It is the source of a question, "What is it that is a plural and yet is not a plural?" The answer is "vowel plus s". We can construct a series of steps which lead to the recursive result that was observed:

a. Speaker forms normal plural with (10), (14) and (15), which is rejected.

b. He identifies a separate final syllable with [ə̥], and forms the hypothesis that it is separated from the stem by a voiceless vowel, (14').

c. Having processed stem#Z through (11), (14') and (15), he receives another rejection.

d. He tries again, and after (11)-(14')-(15) checks the result to see if he has formed a plural. But he does not recognize the result as a plural, and therefore adds another plural #Z, and runs this through the rules; checks the result, fails to recognize it as a plural, and so on.

Throughout this process, the final consonant of the stem appears in various positions. One of the possibilities which is realized most often in careful speech is [ɛstɨz] and [gostɨz]. The epenthesis rule (14) or (14') can accomodate this form by simply inserting the optional stop before the epenthetic vowel--in effect, broadening the operation of epenthesis to include -Kt-.

(14")

$$\# \rightarrow \begin{bmatrix} +\text{voc} \\ -\text{cons} \\ +\text{cen} \\ \alpha\text{tense} \end{bmatrix} / \begin{bmatrix} +\text{strid} \\ \alpha\text{tense} \end{bmatrix} ([-\text{cont}]) \_\_\_ [+\text{cont}]\#\#^{50}$$

Of course there will be no monomorphemic -zd- clusters, so this rule will produce postes, ghostes, waspes, deskes--forms which, as noted above, are quite regular in Southern Mountain speech.

3.10 An overview of the relations between NNE and SE, and some educational applications

In this first volume of our report, a number of structural differences between NNE and SE have been investigated and analyzed. A variety of methods have been used; the nature of the subject matter has led us to different techniques of analysis. No single relationship between NNE and SE has prevailed in all of these areas; the theoretical problems so far have been two:

(a) To develop the forms of the rules which reveal the NNE speaker's knowledge of his language, taking into account the pervasive and systematic variation which we find.

(b) To relate the rule systems of NNE and SE--either as part of a single, all-embracing rule system, or by systematic comparison of NNE and SE rules, in their controlling conditions, variable constraints, and overall input variables. In some sections we have been able to make use of a simple 0, ~, 1 triplet which stops short of quantitative analysis; but the most thorough and convincing analyses, to our way of thinking, utilized quantitative data from the speech community.

To say that there is no single relation between NNE and SE is to assert that NNE is not simply a reduced form of SE, nor a generalized form, nor a Creolized form. It is not simply Southern regional English, nor is it a language independent of SE, which no one but native speakers can understand. In this section we will by-pass such simple statements, reserving them for direct examination in our study of overt attitudes towards language in Volume II. Instead, we will assemble the analyses we have made under certain broad headings, striving for an accurate view of the relations between the systems. We will then consider, under each heading, the ways in which our findings may eventually be related to educational programs. The findings in this first volume are more precise and can be more easily applied than the results of our studies of the uses of language in Volume II, and it would seem to be good strategy to pursue our present knowledge in proportion to its solidity. At the same time, it is apparent to us that the major obstacles to reading and educational success lie in the social and cultural norms that govern language behavior. At the end of Volume II, we will propose changes in the social structure of the schoolroom which we believe will have greater effect than the changes we here envisage in the ways of teaching English grammar and phonology.

3.10.1. *Ways in which SE and NNE are the same*. Under this heading, we can only suggest a few of the more important and striking ways in which NNE and SE are identical. Of the sum total of rules of English grammar and phonology, whatever that might be, we have no doubt that the overwhelming majority will be the same for both dialects. It is on the basis of such identity that we have launched a number of our analyses and received ample confirmation of our initial assumptions. A certain number of these points of identity will not be specific to English, but characteristic of languages in general; yet many of them are peculiar to the English language alone.

The underlying forms of the lexicon are much more similar than one would first think in listening to NNE and SE speakers. In 3.9.5, we heard Boot and Money successfully produce the underlying forms *test* and *ghost*, although their inability to produce the SE plural would lead some to think that their base forms were *tes* and *ghos*. That is not say that there are not individual items that vary widely--*attribute*, *war lord*, *cadence* are examples that will be dealt with in Chapter IV to show how great such variation can be. But these are learned words or particular lexical items which exist only in the vernacular culture, where they are free to go their own way with all deliberate speed.

In our study of phonological variables, we found ample evidence of identity of the base forms of -*ing*(3.1.7) and the -*d* suffix of the past tense (3.2). Monomorphemic clusters in -*ks* were occasionally simplified, but there was no doubt about their underlying shapes (3.3), and the form of the pluralwas never in doubt. In our study of the copula, it quickly became apparent (3.4) that the forms *is* and *are* are the same as in SE, though there is some doubt for some speakers about *am*.

One of the most important points of similarity between SE and NNE is in the evaluation of these phonological variables as shown in their directions of shift. We find no cases where NNE speakers alter the evaluation of -i*ng*, for example, and use more [ɪn] forms in formal speech. These subjective attitudes are so universal and deep-seated in our culture that we do not stop to notice the uniformity involved, except in the rare cases where some group or person breaks the norm.

Note that the direction of the constraints upon the phonological processes are the same over the great majority of the cases we have studied. The effect of a following vowel uniformly acts to retain final consonants for -*r* (3.1.2), for-*ɫ* (3.1.5), for -KD (3.2), for the plural (3.3) and eventually for *is* (3.4.13). Both NNE and SE are governed by the same tendency to favor CVC over CVVC and CVCC.

The fact that NNE and SE have the identical contraction rule (3.4.6) was extremely helpful in determining the nature of NNE's own deletion rule. Of the sixteen phonological rules of English given on p. 207, eight are marked as identical for NNE and SE. The important stress assignment rules for English are the same; epenthesis operates in the same way, along with the universal English voicing assimilation rule. One surface difference--ghoses vs. ghosts is actually produced by one rule which is different and two which are identical (3.9.5).

We only touched lightly on the rules which generate (3.4.7) such complex forms as What I mean, you crazy, but it is evident that these are shared by NNE and SE. WH-attraction operates in the same way, except for such slight deviations as with adverbs of place (3.8.3), and of course the relatives are formed by the same sets of rules.

We see no difference in the NNE use of the progressive and that of SE, nor--granting the got passive--do we see any important differences in this syntactic process (3.5.2). The negative attraction rule, which we relied upon as a base for our analysis of negative syntax (3.6.1) is fundamentally the same for NNE and SE.

The educational implications of this fundamental identity are clear in outline. The slogan, "Teaching English as a Foreign Language" is a bad slogan, but it is also a bad theoretical principle. NNE is not foreign to English. No doubt the major difficulty in learning which is due to structural differences is not that the differences are so great--but rather that they are so small. The very fine adjustments necessary to switch from NNE to SE (see 3.10.2 below) are much more difficult than gross adjustments to a language where we have no comparable rules to modify.

On the positive side, the schools can rely upon this identity of NNE and SE at a deeper level, with confidence that instruction in the fundamentals of English grammar is as important in the ghetto as in the suburbs. But in particular, it should be possible for school programs to lay stress upon those rules which will be critically involved in structural differences between NNE and SE--that is, the rules which form the background against which the differences are seen. Syllabification, for example, is a process which needs to be studied overtly, so that the student can make the connection between some of his surface phonetic forms and the underlying abstraction. The rules for contraction, as developed in 3.4, are not taught in any curriculum, nor are the rules for negative attraction. It should be clear that an overt knowledge of these rules will help in attacking those areas where NNE has extended, generalized and advanced the rules of English.

3.10.2. *Ways in which NNE extends or generalizes rules as they are found in SE*. Most of the particular findings of Chapter III fall under this heading. If there was a simple way to characterize NNE differences from SE, we would prefer the emphasis on the title given above.

We have seen that the degree of *r*-lessness in NNE is several stages advanced over the WNS vernacular (or the RP of Southern England). Intervocalic *r* is sometimes deleted, and word-final *r* before a vowel almost always--significant extensions of the WNS equivalent (3.1.2). The merger of (ohr) and (uhr) in *shore* and *sure* is considerably advanced over the opposite merger to the high vowel found in WNS (3.1.4). The vocalization of (ł) is certainly generalized beyond the activity of the rule as seen in the white population (3.1.5).

As we examine the consonant cluster simplification rule, it is evident that NNE has carried this process further than SE; SE speakers drop monomorphemic -*t*,*d* before consonants, and almost nowhere else, but NNE speakers show considerable activity all along the line. In the case of -*st*, -*sp*, -*sk* clusters, the rule is almost categorical for NNE speakers (3.2.4).Furthermore, the rule is extended to cover final single consonants, opening up an area of variation which is closed to SE speakers (3.2.3). We speculated upon an extension of the epenthesis rule which seems to be followed by NNE speakers under pressure (3.9.5).

In the (KZ) clusters, we find a typical generalization to fill out irregular plurals by one means or another (3.3.4). The associative plural *an' 'em* seems to us an extension of the WNS usage (3.3.5) although it is not inconceivable that it is a heritage from a Creole grammar.

The deletion rule itself, removing single consonants, may be considered a kind of extended contraction. It carries a process of reduction one step further (3.4.6). We observe that the phonological rules which reduce *have* to a lone [v] are extended to remove it entirely

Note that the rules for reducing *am going to* and *is going to* carry these processes of reduction in a slightly different direction from SE and several steps beyond, to a minimal [m] in the first person, or [ɔ̃·] in other persons (3.5.2). Even the reduction of *is not*, *am not* and *has not* to *ain't* is carried one step further, in reducing *did not* in the same way.(3.5.3).

The development of the double modals among NNE speakers offers an interesting case of extension and generalization. The original *might would*, *may can*, etc., is extended to *must don't* and other constructions which takes as a starting point the double modals. The quasi-modals hafta, aposta, gotta are carried further along the line, away from their main verb status in ways that we have discussed (3.5.6-7).

The study of negative attraction and negative concord offered the best view, along with contraction and deletion, of the relations of NNE and SE. We provided here the only rule which was written for several dialects (3.6.6) to show how NNE fits in with the negative syntax of other dialects. There can be no question that negative concord is extended further in NNE than any other dialect we know of--the diagram on p. 283 is worth reproducing here to make this process clear.

	Use of negative concord			
	with indefinites		with tense markers	
	same clause	other cl.	same clause	other cl.
SE	0	0	0	0
WNS$_1$	~	~	0	0
WNS$_2$	~	~	~	0
NNE	1	~	~	~

We can also see the use of free not in addition to the incorporation of [+neg] as a further extension; expressions such as not no more hardly, though, and ..'cause you might not never get no time see 'em again are plainly and exuberantly extensions of negative concord to some kind of limit, and with extensions to the tense marker in the next clause, we may have reached that limit: back in them times there ain't no kid around that ain't --wasn't even thinkin' about smokin' no reefers (3.6.4).

Negative inversion is apparently an extension of the literary negative foregrounding of Nor did anyone see it. We have ain't nobody see it, (3.6.5); and we observe that the displacement of adverbs like mostly, even, all is in the same direction (3.8.4).

An educational program which would take such generalizations of SE rules into account would necessarily involve the student in retracing his steps. The fact that the NNE speaker uses contraction every time he deletes is may not help at all--for he needs to obtain skill in contracting without deleting if he is to master standard English. We are not speaking of pronunciation here, but of reading--for we find that our NNE subjects have little or no ability to read the contractions 'd, 'll, 's which they actually use in speech.

As far as we know, it was never considered necessary to teach contraction explicitly in American schools, except for the spelling rules. But NNE youth needs to have a new program which goes back to stress assignment, proceeds to contraction, and avoids deletion.

Where linguistic analysis can be the most help is in providing teachers with the most general rule which describes the behavior under consideration. The negative concord rule is such an example--we believe that it can be used in school, far more effectively than a piecemeal attack on mistakes, and the slogan that "two negatives make a positive". It seems that the negative attraction and negative concord rules offer an excellent opportunity to introduce the student to the basic distinction between underlying meaning and superficial form, a distinction which must become overt if certain complex problems such as those cited above are to be overcome.

When we consider the problem of reading consonant clusters, it is plain that it will be helpful to have a strong constraint against simplifying grammatical clusters. But more important will be emphasis on the difference between the surface pronunciation and the alphabetic representation. What we observe in the third, fourth and fifth grades, and in our readings on tape, is a loss of confidence in the alphabet. The whole-word approach can always allow a student to show some vestige of reading, but without faith in the alphabetic code, and a willingness to explore it to learn new words, we think that reading will not advance.

The typical pattern which we observe in reading is for the student to read the first letter of the word, perhaps the second, and then jump to any likely hypothesis about the rest. We will take up reading errors in greater detail in Volume II, but this disregard for final consonants should be clearly seen against the material presented here in 3.1-2-3. An understanding of the phonological rules involved will make it plain why so many forms which look different sound alike; and this understanding is as important for the teacher as the student.

At various times, it has been suggested that students receive intensive training in articulation and perception before they begin learning to read. Although such training will undoubtedly be helpful, it seems to us not quite relevant to the reading task. If the teacher wants to get the child reading well as quickly as possible, there is no reason to dwell on or emphasize the differences in sound patterns between student and teacher. The only thing which is required is for the teacher to begin to make the fundamental distinction between mistakes in reading and differences in pronunciation (Labov 1966d discusses some of the sets of homonyms which proceed from NNE phonological rules and their consequences for reading). Without direct observation in the classroom, we cannot be sure what are the most important sources of interference with reading, but it seems logical that any corrections which are made should be concerned with deciphering meaning from the printed page, and not with differences in pronunciation which the student may be unable to hear. The rules of consonant cluster simplification may be so extended for many children that past, passed and pass literally sound identical to them, no matter how carefully the teacher pronounces the words. An approach which emphasizes the meaning of -ed, following the lines of our investigation (3.2.7) seems most appropriate; it may be followed up later with direct teaching of consonant cluster pronunciation. A review of 3.9.5 should convince any teacher that it will be very difficult to teach some of these clusters, and there is no reason why reading should wait for such lessons to end successfully.

3.10.3. Ways in which NNE is missing SE elements. We need only run through a list of the missing elements of SE that have been discussed in the previous pages: the third person singular -s (3.3.5), the possessive 's (3.3.6), the complementizers if and whether, especially the latter (3.7.3); possibly the is passive (3.5.2). There is no doubt that have and the present perfect is weak, but weakness is quite different from absence.

The educational problems caused by the total absence of a mechanical feature of agreement in English are considerable. We have noted above the basic principle that abstract, formal elements are the most difficult to teach and the easiest for a non-standard dialect to lose. The difficulties of teaching third person singular -s hinge upon the absence of a deeply internalized "location" of third singular in the NNE speakers' grammars; the redundancy of the feature; and its abstractness. Note that the possessive is firmly in place in absolute position where it is necessary: that's theirs. But in attributive position, where 's is redundant with word order, there seems to be no communicative need to hold this inflection, and it will undoubtedly be difficult to teach. Note that there is no way in which this -s can receive stress or emphasis in the normal course of speaking--a very different situation from that which prevails with is.

3.10.4. *Elements in NNE that are missing in SE*. We have a relatively small list of such positive features of NNE which do not exist at all in SE. High on the list, of course, is the invariant verb *be*$_2$ (3.4.11). This entry in the dictionary does a great deal of work for NNE speakers, and we have discussed its deliberative, stative, and habitual meanings at length.

There are two phonological rules of NNE which do not exist in SE: the copula deletion rule, which actually works upon any lone consonant between word boundaries (3.4.6); and the rule for deleting post-vocalic schwa (3.4.8 and elsewhere). These are of course the obstacles to be overcome as far as the school program is concerned. In one sense, they are both extensions of processes already operating in SE--the vocalization of (r) and the contraction and cluster simplification rules. In this sense, *be*$_2$ remains the only substantial element of the grammar under this heading.

There are a number of features of Southern English, such as *done* and *like to* (3.5.7) which we might discuss here. But we do not have enough evidence on white Southern dialects to speak with any assurance, and we will therefore leave this area for development later.

It cannot be denied that there is a vast range of lexical items which differentiate NNE speakers from SE, but here we are considering only the grammatical core of the language, and not the lexicon. In Volume II, we will take up in detail a number of particular features which differentiate the NNE vernacular community from the white community, including such lexical items as evidence of sharp breaks in the lines of communication. Furthermore, we will consider what adult Negro speakers mean when they talk about the "language of the street", or their "jargon" as a matter of pride. It will appear that the marks necessary to communicate with an adult audience, and convince them that one is speaking the vernacular, are of a very different order from the systematic features we have been discussing here.

3.10.5. *The sociolinguistic structure of the NNE community*. Throughout this report, we have presented data on stylistic and social stratification of various linguistic elements: (r) in 3.1.2, (ing) in 3.1.7, (KD) in 3.2.8, (KZ) in 3.3.8, the copula in 3.4.13, and a number of other smaller studies. The ghetto area is characterized by what we may call "sharp stratification" [as described for (th) and (dh) in SSENYC: VII)]. Instead of a broad continuum of speech forms, there are a number of sharp cleavages in the population: three such cleavages turn up frequently in our tables.

a. Middle class vs. working class. The middle class adults most consistently reflected a grammar different from that of the bulk of the population. In many ways, they resembled closely the middle class white population of New York City, at least in their relation to the working class group. They used more r, fewer stops for (th) and (dh), more third singular -s, less copula deletion, and so on: these are not statistical tendencies that are difficult to detect, but major gaps between them and all others.
To a certain extent, the sharpness of the stratification is due to our methods of sampling, but not entirely. Three of the residents of Lenox Terrace were classified with the working class population on socio-economic grounds, and these characteristics are indeed better predictors of their linguistic behavior than residence alone. The sharp stratification of Harlem into middle class vs. working class has been observed from many viewpoints.

b. Adult vs. adolescent. A glance at any of the charts which compare working class adults with the peer group members will show an abrupt discontinuity. Whereas the pre-adolescents, younger adolescents of 12-13, and older adolescents of 16-17 are all quite similar, we find that the working class adults do not preserve that uniform grammar which we have called NNE. The frequencies of contraction and especially deletion show this; the variability of negative concord; the fact that adults do not use ain't for didn't; that they do not use $\underline{be}_2$, and a large number of other sharp differences. We will see in Chapter IV that adults acquire a uniform set of subjective reactions which adolescents do not have; and at least in Harlem, we have seen that adolescents have a uniform vernacular that adults do not have. This cleavage may be accentuated by our difficulty in interviewing young Negro men 20 to 30 years old, but we find the transition to the adult pattern beginning with 18-19 year olds, and the Oscar Brothers are clearly departing from the NNE vernacular in several ways.

c. Lames vs. club members. In Chapter IV we will examine in some detail the interior structure of the peer groups, and see how this structure affects grammar and phonology. But throughout this chapter we have been observing a grosser, more abrupt distinction between lames or isolated boys on the one hand, and members on the other. It is no accident that the lames deviate from NNE grammar on point after point, leaning in the direction of the white Inwood group if not towards SE. Though lames are often young, they are young in an old way as far as NNE is concerned; they resemble adults in their grammar and phonology, they reflect adult values in what they say, and they are open to adult influence which is opposed to the peer group. This is the fundamental cleavage which the teacher encounters, but only from the outside.

Teachers do not really know who is who within their classes, since many club members behave in ways that are to their advantage in gaining teacher approval for limited ends: not all antagonism towards the school system is overtly expressed.

The existence of these three discontinuities sets off the existence of an extraordinary uniformity within the vernacular culture. There is no sharp break between the Thunderbirds, as pre-adolescent; the Jets and Cobras, from 12 to 17 years; and the Oscar Brothers. On a number of our multiple diagrams, we have shown this uniformity within the peer group culture.

The third cleavage is a trap for the unwary educator, who may be encouraged by the significant number of improvements in reading, speaking, arithmetic, and so on, which he obtains from a given experimental program. It must be acknowledged that every class will have a percentage of isolated boys who are open to such improvements, who will accept the aims of the educational program, and who have already incorporated the raw materials for it into their basic grammars. Success with this minority of the youth is not success in the ghetto areas: any program should be aimed at the bulk of the students who do participate in the NNE linguistic and social milieu. When this group moves, it moves as a whole: so far, it has resisted any pressures from the school system to do so. We do not mean, of course, that the group is consciously organized as a focus of resistance in school; but rather that the cultural values internalized by group members make such resistance very probable.

We will return to the relation of this large-scale data to the individual behavior of Jet and Cobra members, in 4.2 in Volume II. In this half of our work, we have been focusing upon the uniform object--NNE--and its users as a group. It must be remembered, then, that this group of students is divided from their teachers by color, from the middle class community by their socio-economic background, from adults by age and an entire set of adult reactions which they do not possess, and from the isolated, upwardly mobile boys by a set of values which peer group members reject and the others accept.

To see the grammar of NNE set in this framework is helpful in appreciating its uniformity, its viability as a means of communication, its stability consistent with inherent and widespread variation. NNE has an internal logic in its formal structure, as we have tried to show. It makes its own choice of redundant features, quite independent of the choices made by SE at many points. Members already show a wide range of style shifting with some of the variables we have studied. If they can be persuaded to accept the kind of style shifting which adults use, it can be used as a bridge to move towards SE while they presumably have the flexibility and adaptability to do so. We observed that NNE speakers use the copula deletion rule as a stylistic marker in moving between group and single sessions; *be*$_2$ also served as a mark of careful, deliberate speech within the NNE framework. However, most of the variables we studied did not change very much within the conversational range. An examination of the phonological variables in 3.1 shows that Jets and Cobras as well as Thunderbirds change style only in the most formal contexts --Styles C and D. This is a fourth discontinuity, which reflects the isolation of every-day life from the formal program of the school system. Reading is irrelevant within the peer group, and reading style never penetrates into the use of speech in conversation.

There have been several suggestions for short-circuiting such complex patterns of style shifting. It has been proposed that children be taught to read within the grammatical framework of NNE. Our subjective reaction tests and other observations show that such a program would not be accepted easily by the adult community: children are sent to school "to be educated", which implicitly means learning SE. While some NNE texts may be strongly motivating for many children, it is not the case that there is a great deal of interference from grammatical differences between SE and NNE. Repetition tests,for example, show that only a few items actually cause such interference.

It has also been suggested that a program of "bi-dialectalism" would have more success than a straightforward inculcation of SE forms. The psychological effect of tolerating or reinforcing the vernacular is no doubt very great. The possibility of achieving competence in both NNE and SE is more dubious. We have not observed any individual who could be considered bi-dialectal in this sense. When one learns SE, or comes into extensive contact with SE speakers, there is an inevitable change in the NNE rules. We have observed such changes in our own staff members: it should be realized that when two such closely related dialects are in contact, they cannot be maintained as two separate entities. Rules for consonant cluster patterns, for the copula, for question forms, for the negative--all show the kind of shift which we have documented in our adult speakers, and which is overwhelming among the middle class speakers. To say that there is going to be some loss when SE is acquired is not to say that SE should not be acquired. Not everyone who becomes a standard speaker loses contact with the vernacular: we find that the leaders of the Harlem community use a number of compensating devices to convey the impression that they are speaking the vernacular, although their underlying grammar is very different. Such devices are worthy of study in themselves: the idioms and lexical items which preserve contact with a grammar which one has long since left behind.

FOOTNOTES

Notes to Chapter I

[1] Some of the sources upon which we have drawn are The Negroes in the United States: their Economic and Social Situation, Bureau of Labor Statistics Bulletin No. 1511, U.S. Dept. of Labor, June 1966 [cited below as BLS 1511]; A Harlem Almanac, edited by William A. Glaser, Bureau of Applied Social Research, Columbia University, May 1964; Youth in the Ghetto (New York: HARYOU, 1964; The Negro Family: The Case for National Action, U.S. Department of Labor, March 1965 [cited below as the Moynihan Report].

[2] Median school years for Central Harlem in the 1960 Census was 8.9, as compared to 10.6 for Manhattan [Harlem Almanac p. 23].

[3] In October 1965, unemployment rates were higher for non-white high school graduates than for white dropouts [BLS 1511, p. 24].

[4] See Labov and Robins 1968, "A Note on the Relation of Peer Group Status to Reading Failure", and 4.4, Vol. II of this report.

[5] In the 1960 Census, it was reported that among non-white youth 10 to 13 years old, 17.1 per cent of females were one or more grades behind, and 25.0 per cent of the males [Moynihan Report, p. 31].

[6] The charts for total scores and grade equivalents on the Gray Oral Reading Tests, Form C, assign a grade equivalent of 12.0 to a boy who scores 73; a girl who scores 73 on the same test will be rated at grade 10.6. A boy who scores 30 on Form A is rated 3.2, a girl 2.7.

[7] We will have occasion to cite frequently the final report to "A Preliminary Study of the Structure of English Used by Negro and Puerto Rican Speakers in New York City" by William Labov, Paul Cohen and Clarence Robins; this report on Cooperative Research Project 3091 will be referred to as CRP 3091. It is available as ERIC ED 010 688.

[8] Walter Loban's reports on his longitudinal studies of school children in Oakland, California, include comparisons of "High Caucasian, Low Caucasian, Negro. and Random" for almost all features reported. His report on "Language Ability, Grades Seven, Eight and Nine" gives most data as "Number of Deviations per 1000 words of spoken volume" [Cooperative Research Monograph No. 18, OE-300018].

[9] We are much indebted to Courtney Siceloff, director of the Penn Community Services, Beaufort for his help in obtaining many of these interviews, and for the general understanding of the social and educational situation of the area which he conveyed to us.

[10] Information on Negro speech patterns is not provided in any of the major publications of the Linguistic Atlas (Kurath 1949, Kurath and MacDavid 1961); Atlas records in general do not concern most of the linguistic materials discussed here.

[12] For a more detailed discussion of these terms, and their authors' use, see "The Linguistic Variable as a Structural Unit" (Labov 1966e).

[13] All citations in this report are given as a series of three items in brackets: age, peer group membership or geographic origin, and tape number. The tapes cited are available to those who wish to pursue any of the theoretical or applied problems further with reference to particular citations. Occasionally, sentences will be cited from WNS without references--it will be understood that these represent the intuitions of the authors, and are not attributed to any empirical study. The peer group membership assigned is somewhat broader than group membership as discussed in Chapter IV: junior members and peripheral figures in that area (but not lames) are cited with that peer group name. For adults, the geographic area in which they spent years 4-13 is used as a reference.

[15] This does indeed to be the case in Phoenix, Arizona, from exploratory work done by W. Labov. The two-phoneme system is primarily used by Mexican and Negro groups, while Anglos are heavily biased towards the one phoneme system.

Notes to Chapter II

[1] We wish to thank Mr. Zell Ingram, of the Children's Aid Society, director of the Stephen Foster Center, for his assistance and kind cooperation in carrying out this program. We are also indebted to Mr. Theodore Gross and Mr. Richard Jordan of the Stephen Foster Center.

[2] An accurate enumeration of this building was extremely difficult, as for various reasons a number of families did not wish to report all of the children living in their apartment, and others did not communicate at all with outsiders. The problems were solved by Mr. Robins with the help of the Thunderbirds, who supplied much information which would otherwise not be available to us.

[3] We were informed by one Youth Board official that since there were no gang fights in the area, no worker from the Youth Board was assigned to it. The area referred to included the "Cobra" and "Jet" territories and a much larger section besides.

[4] The peer groups we worked with almost always had a junior organization, headed by a younger brother, and/or had been such a junior group at one time. But there is nothing of a compelling character about such an institution.

[6] Data on the 1960 Census as compiled in the Harlem Almanac cited in Ch. I, fn. 1.

[7] This was the case with the SSENYC study, and several social surveys carried out in lower class areas. The methods used here successfully avoided this bias.

[8] We are indebted to Dr. Samuel McClelland, Director of the Bureau of Educational Research, and to the many district superintendents and school principals involved for their help in obtaining these records.

[9] Such tactics inevitably have their effect upon the group itself. Yablonsky (1963) showed that street gangs were strengthened and grew as a result of the attention paid them by social workers. We found that the Jets were using their outings with us as a basis for recruitment.

[10] See 3.1.4 for the NNE situation here; for the WNS development of the influence of gravity on height, see SSENYC: VIII.

Notes on Chapter III

[1] See Sivertsen (1960) for a detailed description of the Cockney situation.

[2] The Wepman Test for auditory discrimination, still widely used for research in ghetto areas, includes a minimal pair of the Ruth ~ roof type, and one of the pin ~ pen type. Normal Negro children should have difficulty with these, as our minimal pair and perception tests show.

[3] No rule is entered here to produce the palatal upglide in work, shirt, etc. This feature has been so heavily stigmatized that it no longer forms a part of the basic vernacular for most younger speakers (See SSENYC: IX).

other?" which deserves citing here. "Now you go into a store and you ask the man for a pen [pɪn] and he'll reach and-- and you'll say 'I don't want no [pɪn]--I want a safety [pɪn]! But I want a pin to pin my shirt with...' You got to explain it to him what he want--see?" The speaker is a 45-year-old Negro man raised in Manhattan, between 50th and 60th Sts. in the San Juan Hill district. Many such accounts are volunteered by our informants: the merger of p*in* and p*en* plainly causes communicative difficulty.

[13] We have cited before the case of the leader of the Thunderbirds, named *Boot*. For several months, we knew him as *Boo*, until the number of final glottal stops at the end of his name made us suspect that there was a final consonant. Some of the younger Thunderbirds call him [buːk]. The issue was resolved when he appeared one day with a pair of sneakers labelled BOOT.

[14] We have also noted more than a few cases of the plural testes [tɛstəz]. For a modification of the rule of inserting epenthetic vowels to include such forms, see 3.9.5.

[15] As noted in Chapter II, we are indebted to Dr. Samuel McClelland, Director of the Bureau of Educational Research, and the superintendents and principals of the schools involved, for their help in obtaining these records.

[16] See Labov and Robins, "A Note on the Relation of Peer Group Status to Reading Failure" (1968).

[17] The Gray Oral Reading Test was administered to the Jets by John Lewis in a series of sessions arranged for the purpose. We were able to correlate the Gray scores with our own reading index and the school records; the conclusion is that the members did perform somewhat better for us than in the school test situation, although their overall performance was very poor.

[18] The better readers, of course, show a heavy concentration of lames. Although there are one or two peer group members who read well, the over-all performance of the lames is distinctly better. Furthermore, we find that some members who read quite well show strong deviations from the basic vernacular in their grammatical and phonological behavior. For an analysis of many of these individual cases, see Volume II.

[19] The Inwood group frequently expressed strong hostility towards Negroes. In various subjective reaction tests, they unhesitatingly identified Negro forms as Negro with many negative comments. At the same time, this hos-

tility does not preclude the possibility of Negro influence upon their speech; we have many instances of whites living in continual conflict with Negroes, yet adopting Negro speech forms unconsciously into their fundamental vernacular.

[20] It is interesting to note, though hardly conclusive, that the one member of the TA Inwood group who did not read 3/3 on sentences 4,6,9 also showed the highest proportion of deletion for (KD_p) before consonants.

[21] A number of other examples of hyper-D are discussed in 3.5.5 and 3.5.8, leading to a connection with a potential "tense transfer rule". The direction of the evidence is enough to show that there is no difficulty with the *-ed* suffix itself; it is rather a question of the placement of the tense marker. Some of the hyper-Z cases discussed below, such as *He can gets hurts*, may spring from the same source, but most are plainly based on failure to grasp the person-number agreement rule of SE.

[22] Data on Trinidadian English and French Creole is from Denis Solomon.

[23] The theoretical question posed here has been put most clearly by Chomsky, who suggests that dialects of the same language are likely to be more different in their surface structure than in their underlying representations. The general question is argued in the papers of Chomsky and Rosenbaum in *Project Literacy Report No. 2* (Ithaca, N.Y.: Cornell University, 1964). In general, our results show that Chomsky's position is borne out; there are only a few cases where superficial differences are less than differences in base rules. Perhaps the outstanding case is *be*$_2$ (see 3.4.11), where the resemblance to SE *be*$_1$ serves to mask the considerable semantic difference involved.

[24] It may be helpful here to summarize the possible arguments to show that there is no relation between sentences of the form (22-39) and the examples of 3.4.2, and therefore no underlying *is* or *are* in NNE. (a) *was* and *were* are past tense markers; (b) *ain't* is merely a negative marker; (c) *I'm* is an allomorph of *I*; (d) *be* in non-finite positions is related to the habitual *be*$_2$ and not to *be*$_1$ of the finite copula; (e) *i's*, *tha's* and *wha's* are allomorphs of *it*, *that* and *what*; (f) emphatic forms are imported from SE, as are (h) yes-no questions which foreground *is* and *are*; (i) elliptical responses and comparative ellipsis provide automatic *is*-support, comparable to *do*-support. We do not find these arguments convincing, but it can be argued that the existence of explanations based on the deletion of *is* and *are* are only valid from an SE point of view. For those who do not wish to accept arguments based upon simplicity, it is always possible to

claim that the language has the miscellaneous character of (a-i), as a result of certain historical processes. It will require further data, to be submitted in the following section, to show that these arguments do not apply to the present day NNE being studied here.

[25] We cite these rules in the form used by Chomsky in his 1966 lectures at the Linguistic Institute in Los Angeles, since the Sound Patterns of English has not yet appeared at this writing. Certain modifications of the rules seem to be required by this data, such as the weak word rule, but on the whole the contraction rules, and the deletion rules which follow, give independent confirmation of Chomsky and Halle's stress assignment rules.

[26] See below, p. 196, for further comments on this point.

[27] While the basic vernacular is uniform up to a point, see 3.4.13 on the development of phonological conditioning of the contraction and deletion rules with age.

[28] In the case of adults, the lower diagram shows "casual speech" as isolated in the single interviews. The criteria for determining the shift to casual style are contrastive changes in "channel cues"--pitch, volume, tempo, and rate of breathing (which includes laughter); for Negro speakers, increases in pitch range are taken as the primary criteria, relatively much more important than with white speakers.

[29] The amount of data presented in these quantitative studies varies; in the initial variables, the patterns for six different groups in two styles are shown, so that the full regularity of the variable relations may appear. In later variables, only limited portions of the data available are presented. Not all of the speakers in most of the groups have been studied completely; and though it is possible that some of the data not yet entered may lead to changes on points of the analysis, most of the relations presented are so regular and binding that if half or a quarter of the data given here is taken, the relationships remain constant.

[30] Note that the Jets differ from the T-Birds and the Cobras in the relation between following noun phrase and following adjectives and locatives when a noun phrase precedes, but that there is no difference when a pronoun precedes. In general, the nature of the constraint involved here is uncertain--it has no obvious semantic or functional interpretation--and there is considerable fluctuation of this nature. In the final statement of the rule, we will not attempt to incorporate a specific rule for [NP]--though it is useful in the exposition to

this point since it reflects the parallelism of contraction and deletion.

[31] *That*, *what*, *it*, *lot* and *one* are the chief exceptions, but the first three obey special rules discussed below to yield *i's*, *tha's* and *wha's*. *One* and its derivatives are the only pronouns which would allow us to examine the deletion rule left in this class. Impersonal *one* does not occur in colloquial speech, and the other forms are not frequent enough to yield reliable data at this time.

[32] This exception, the Cobras, is based upon a relatively small number of cases, and it is possible that furthere data will alter the picture; but in any case, voicing is not a major effect.

[33] There are individual speakers of NNE who extend the usual rules of consonant cluster simplification to extremes, and also carry further the weak tendency to delete final single consonants, thus arriving at a high proportion of CV syllables.

[34] The literary convention of writing *i's* with the apostrophe before the *s* indicates that in an unreflecting approach the *s* is seen as a descendant of an orig- *is*. As we will see below, this is true only in the sense that the *s* reflects the presence of the copula, but in a non-linear fashion.

[35] One might think that such schwas would be indistinguishable from reduced forms of *are*; but in NNE the amount of person-number disagreement of *is* and *are* is very low, and there is practically no vestige of *are* occurring in singular contexts. See 3.4.9.

[36] That is, there are no pronouns ending in consonant plus *t*. However, if the assibilation rule is actually broader than it seems in this formulation, it may then be ordered with respect to the cluster rules presented here.

[37] It is possible that **All I broke*... sentences go back to underlying structures with *is* as the main verb. There are also many related foregroundings such as *The only thing is, I broke my leg*, which also allow, *The only thing, I broke my leg*. Where such *is*'s can be deleted, *was* can be too, as in (130), which indicates that we are not dealing with a phonological process.

[38] The WH-attraction we have in mind here is the same transformation which produces *What a crazy guy he is*! In this case, it operates only when the WH-that has a rela- clause appended; although this may not be the correct

ture for this sentence, but it may very well be for *What I broke was my leg*.

[39] There are other pieces of evidence on the uneasy situation of *have* which may be noted. One of the difficulties in dealing with *have..ed* is that it is sometimes said to be optional in all cases--that it is impossible to produce an ungrammatical sentence without *have..ed*. However, Paul Cohen has noted that the following sentence seems to require *have* but does not have it: *I lived in New York City all my life*. [17, Oscar Bros., #556]. The speaker still does, and *have* seems oddly missing here. *Have* or *got* can be deleted as a main verb, as in ..*the crowd I hang out with, it no leader*. [15, N.Y.C., YH-41].

[40] There also seems to be a super-stative use of *be*$_2$ where it has lost its position as a main verb and become an adverbial particle or quasi-modal similar to *done*. Note *Like I be come over there*... [15, Oscar Br., #584] and *The guys be already have the winners in basketball* [12, T-Birds, #365]. These *be*$_2$s seemffurthest removed along the stative, or 'to be in the condition of" axis.

[41] See footnote 39 for other examples of *have* not occurring where expected.

[42] It is very common to find *have* + *not* as auxiliary replaced with *ain't*. From a 25-year-old man raised in Florida, we have *I ain't never had no trouble wit' none of 'em* and also *No, ain't never seen 'em pick up nothin'*. As a main verb, we also have ...*with the guys I hang out with, we ain't no leader in there* [15, N.Y.C., YH-41, the same speaker who deleted *have* in fn. 39]. Note that *ain't* can even represent *wasn't*: *My brother ain't doin' nuthin'*--a past tense meaning [12, N.Y.C., #416].

[43] We are much indebted for this and other data on double modals to Miss Mary Clayton.

[44] Rebecca Moreton of the Center for Applied Linguistics furnished us with this information from her personal knowledge of the speech of Jackson, Mississippi, together with a great deal of other data on relevant syntactic forms.

[45] The quasi-modal *supposed to* has lost its tense marker for many speakers, like *used to*, and therefore requires *do*-support. ..*when he don't supposed to hit me with it*.[9, T-Birds, #364]. *Indians don't supposed to have those on* [9, T-Birds, #586]. The expression, ..*don't 'poseta* is very common among the T-Birds. There is no impediment, of course, to *supposeta don't*.

[46] The quasi-modal *useta* also occurs with the simple preterit *was*, as in *He useta was workin'*.[10, T-Birds, #449]. It first became obvious to us that *useta* and *supposeta* had lost their tense marker when we realized that we could never use these forms for (KD)--the cluster was permanently neutralized.

[47] We find among our strange syntax cards the following plainly non-standard sentence: like so many of our early notations, it was very difficult to say just why and how it was non-standard. *'Cause he just might jump on you, get you on the ground, don't let you up*. [15, Lame, #487]. At first it seems like a lack of parallelism: *and not let you up* is standard. The tense marker is on *might* in SE, and here it is repeated with *let*. But we cannot overlook the fact that *let* occurs over and over with tense transfer; here the presence of *let* induces the tense transfer rule, which would be in a single clause *Cause he just might don't let you up*. Now that the connection between the double modals, the quasi modals, and the tense transfer rule has been made, one can begin to follow the logic of this example.

[48] See under Memory Tests, 3.9.1, for a remarkable substitution of *have* for *done* which shows that native NNE speakers have the unconscious knowledge that *done* is a perfective (p. 315).

[49] We have recently received a preliminary report by Garvey and McFarlane (1968) of repetition tests carried out in the Baltimore public schools. The authors utilize the basic approach and syntactic variables in our first reports on a much larger population, with excellent controls. As in any testing program in the city schools, motivation and knowledge of the subjects is limited necessarily to what is already present within the system. Garvey and McFarlane provide a great deal of valuable detail which confirms and enlarges our knowledge of this type of behavior. The fundamental finding for the authors is that the Negro schools give relatively uniform responses to many variables which differentiate them as a whole from the population of white students: "although the subgroups do show different transposition scores for certain structures, the degree of similarity between the two groups is sufficient to justify some common bases for training" (p.23).

[50] The α notation used here is the conventional use of Greek letters to indicate two features with the same value. When paired variables occur in a rule without parentheses around the right hand member, this is the automatic interpretation. Single Greek letters in such a context have no automatic interpretation, and are usually tied to a special condition stated with the rule.

APPENDICES

Appendix A:	Interview schedules Q-HAR-Ad-IV Q-HAR-TA-Hip
Appendix B:	Form letter and coupon for adult sample, Cobra and Jet territories

Q-HAR-Ad APPENDIX A Form IV
5 18 66

U. S. SURVEY OF REGIONAL CUSTOMS

A. Screening

0.1. Where were you born and raised?

0.2. When were you born?

0.3. Where did you go to school?
[all of the various places]

0.4. Can you give me an idea of the different places you've lived, starting about the time you were five?

0.5.1 a. Where was your father born and raised?
.2 b. mother
.3 c. father's father [continue until 1st generation outside NYC]
.4 f. father's mother
.5 e. mother's father
.6 f. mother's mother

0.6. What was the first language you learned to speak?

0.7. Have you made any long trips outside NYC?
.71 [For Afro] Have you ever travelled or visited down South?
.72 [For PR] Have you ever visited Puerto Rico?

0.8. Are you married? Any children?
[Names and ages]

I. Children's games

I want to ask you a few questions about the games and customs kids used to have around here--the kind of thing you don't learn from books or television.

M 1.0. How did you play the game like Hide-and-Go-Seek with teams around here? [ringalevio, ringalicoco, etc.]

F 1.0. What sort of jump rope games did you play?
1.1. How did the rhymes go?
1.2. What about clapping games?

2.0. How did you decide who was IT in a game?
2.1. What about rhymes? [if not given]
2.2. Do you know "Eeny, meeny..." How does it go?

II. Peer group and violence

"I want to get a good picture of the customs when you were growing up. The best way--if it occurs to you--is to talk about something that happened, right from the beginning. Don't cut yourself short."

M = males only
F = females only

1.0. Was there a crowd of kids you used to hang around with when you were [coming up], 10-15 years old?

  1.1. Were any of them [Spanish, White, Negro, Jewish--appropriate categories]?

  1.2. Was your crowd cool? [hip?]

  1.3. Who was the one kid who decided what to do most of the time?
    1.31. Was he the smartest or the toughest?
    1.32. Who was the smartest? Why?
    1.33. Was he smart in school?

  1.4. Could he be a brain in school and hang out with your crowd?

2.0. What were the rules for a fair fight?

  2.1. When someone said, "I give [up]," could you turn your back and walk away [if No,] why not?

  2.2. Did you ever have a fight with a guy bigger than you? WH?

  2.3. What was the best [worst] fight you ever saw?

M+ 3.0. What was the most trouble you kids ever got into? What about?

4.0. Were you ever in a situation where you were in serious danger of getting killed? WH?

5.0. Did you ever know someone who jumped in and helped someone who was in trouble?
  5.1. What about the Puerto Rican grocer in the Bronx that helped save a cop's life? and people wouldn't buy from him? How do you feel about that?

III. Neighborhood and family.

1.0. When you were growing up, who were all the people who lived in your house?
  1.1. Who was the main person who worked in your family?
  1.2. What did he [she] do?
  1.3. Who else worked?
  1.4. What did they do?

2.0. What was the first job you got after leaving school?
  2.1. Did your folks ever say what they wanted you to be in life?
  2.2. Are you working now?

+ = for additional speech
WH = what happened?

   - 2.3. What do you do?
   - 2.4. Is there anyone else in the family who works?
   - 2.5. [If not working] are you getting any help from unemployment or welfare?

3.0. When you were a kid, did you ever get a whuppin' for something you didn't do? WH?

4.0. Some people say you can raise kids without laying a hand on them. What do you think?

5.0. Did anyone ever help you with your homework?

6.0. Did your father or your mother take the time to tell you the facts of life?
   - 6.1. Today, would you teach your children the same way?

7.0. If you had a little boy, five years old, who came to you and said, "Daddy [Mommy], what does this word 'nigger' mean, what would you say?

IV. Men and Women

1.0. What did you look for in a girl--a girl you would want to go with--as far as appearance is concerned? [height, color, hair, nose, lips...]
   - 1.1. Did your ideas ever change?

2.0. Some people feel that experience is the best teacher, and some feel that a woman--or even a man--should be pure when they get married? Have customs changed around here in that regard?

3.0. Some people think that it's wrong for a man ever to hit a woman, no matter what. Do you think that's so?
   - 3.1. If a man did lose his temper and hit a woman, would he be more or less of a man for doing so?

4.0. If a girl who isn't married turns out to be having a child, who's responsible today?

5.0. If a man can't get a job--through no fault of his own--should he stay with the family and help with the work--even with the housework?
   - 5.1. What if that makes it harder for the family to get welfare--should he stay just the same? Why?

6.0. Did you ever know anyone who married a woman with more education than himself? How did it work out?

[7.0. Do you remember the first time you laid a girl?
    7.1. How did you know what to do?
    7.2. Did you worry about hurting the girl?

V. Jobs, goals, school

1.0. Suppose you had a choice of three jobs:
    a high paying job with a good chance of losing it
    a medium paying job with a 50-50 chance of losing losing it
    a low paying job with very little chance of losing it
Which would you go for?

2.0. How much schooling does a young man need these days to get ahead?

3.0. We heard of a case of a guy who had a real slave downtown, and he had a chance to earn real money--and support his family--by hustling? Do you think he should?
    3.1. If his wife comes to him and says, "Let me work--you go to school so you can get a better job." Should he do it?
    3.2. What if he found out later that she was was hustling?

4.0. Did you ever get any real kicks out of learning something new in school?

5.0. If there was an extra hour of school time to use, would it be better to spend it in teaching reading, or teaching karate?

6.0. Did they teach anything about African history when you were going to school?
    6.1. Do they teach it today?
    6.2. Should they take more time? Would it make any difference?

7.0. Why do you think kids have so much trouble learning to read today?

VI. Race and Religion

1.0. People used to say that colored folks would never rise because they are born losers. How do you feel about that?
    1.1. Can you change your luck by praying real hard?

2.0. When we speak about getting killed a lot of people say, "Whatever is going to happen is going to happen." What do you think about that?

3.0. Would there be an occasion where you might go to a reader and adviser for help?
  3.1. Could they help you with a number?
  3.2. Do you know of any thing a person can do to have someone visit him in a dream?

4.0. [Show picture of lynching.] Do you think that it's possible that the men who did this believe in God?
  4.1. Can any white man really believe in God?

5.0. If you could be born again, what country would you like to be born in?
  5.1. What color would you want to be?
  5.2. Is it smart to pass for white?

6.0. Is there a difference between an Uncle Tom and a pork chop?
  6.1. Do people around here feel any different about eating pork than they used to?
  6.2. How do you feel about it?

7.0. Can you get your civil rights without getting your head busted?
  7.1. Is it smart to go out on a picket line?

VII. Language

"One of the things we're interested in is the differences in the way people speak."

1. Reading

  1.0. Nobody Knows Your Name [for text, see CRP 3091, p. 28]
  1.1. Word lists [for text, see CRP 3091, p. 22]

  [1.2. Gray's Oral Reading Test]

2. Subjective Tests [for details, see Vol. II, 4.5]

  2.0. Family Background

  2.1. SR Tests
    2.11. Jobs
    2.12. Toughness
      2.121. "certain" scale or
      2.122. "stone killer" scale
    2.13. Friendship
    [2.14. Self knowledge]

3. General Questions

   3.0. Would it help if Afro people used English just like white people?

   3.1. Is there any difference between colored and white people when they speak classroom English?
      3.11. In the South?
      3.12. What do you think about Southern speech?

   3.2. Would it help the kids in the Job Corps if they tried to teach them to speak differently?

Q-HAR-TA-Hip-1 APPENDIX A 1/4/66

AMERICAN REGIONAL SURVEY

[John Lewis's re-written version of the adolescent interview schedule, Q-HAR-TA-II]

We'd like to know how hip you guys are around here. We know folks here in Harlem have a hipper way of doin' things than folks in other parts of the country.

I+ Sports
    1. Playing or watching.
        1.0. What would you rather do, watch a game or play one?
            1.1. Which one? [or, which position?]

    2. Boxing
        2.0. Did you ever do any boxing?
            2.1. Whose style do you like? Why?
            2.2. Who's the fastest boxer?
            2.3. The strongest?
            2.4. The best? [Go into who could beat who?]
            2.5. Has anybody around here gone into the Golden Gloves?
            2.6. How do you think you could do yourself?
            2.7. Is boxing crooked?
            2.8. Who would win if a boxer or a karate expert--like Mohammed Ali against a black belt? Which needs more skill boxing or basketball?

II. Trouble
    1. Fighting
        1.0. Do rumbles ever start over chicks or dough?
        1.1. What are the rules for a fair one?
        1.2. What was the best rumble you ever saw?
        1.3. Did you ever fight a guy that was bigger than you? What went down?
        1.4. Suppose you drop a dude, and he says "I give," could you walk away without watching your back?
        1.5. What would happen if you couldn't fight? What makes a punk?

    2. Girls Fighting
        2.0. Do the chicks around here rumble?
            2.1. Do they rumble like chicks bitin' and scratchin' or like dudes?
            2.2. Did you ever shine your shoes or crack a chick's jaw?

Q-HAR-TA-Hip-2

III. Peer group.

1. Group
  - 1.0. Is there a bunch of cats you hang out with?
  - 1.1. How many are there?
  - 1.2. Who are some of your boys? Names and ages.
  - 1.3. Do any of your boys speak Spanish?
  - 1.4. Do you hang out with any whiteys?
  - 1.5. Who's your main man?
  - 1.6. Who are some your best friends?

2. Leadership
  - 2.0. Is one cat the leader? Who?
    - 2.1. Is he the slickest, the biggest, or the best with his hands?
    - 2.2. Is there a number two man?
    - 2.3. Is there one cat who sells woof tickets, but can't cash 'em?
    - 2.4. Is there a cat who cracks a lot of jokes?
    - 2.5. Where's the hangout around here?

IV. Teen-age games

1. Card games
  - 1.0. What card game do the cats play most around here?
    - 1.1. Which do you play most, Whist or poker?
    - 1.2. Gimme an idea of the rules you use.
    - 1.3. Could you name some other card games the cats play?

2. Dice
  - 2.0. How do you play Sea-Low around here?
    - 2.1. Do rumbles ever start over cards or dice?
    - 2.2.

V. Background

1. Where born [city, state].
2. When?
3. Where was your father born?
4. And your mother?
5. Now, can you tell me the hippest places and the squarest, as far back as you can dig. And how long you have squatted in each place?
6. Have you ever been out of the city? Where to?
7. What kind of games did you learn from the street when you were a kid?
  - 7.0. Could you run down the rules for lodee?
  - 7.1. Ring a ring-cocola.

VI. Family

1. Home address.
    - 1.0. Where do you live?

2. Family structure
    - 2.0. Who are the members of your family, starting with your parents? Do they all shack with you?
        - 2.1. If your father living? [If not mentioned]
        - 2.2. Who gigs in your family?
        - 2.3. Who else gigs? What do they do?
        - 2.4. Does your family get help from welfare? Unemployment?
        - 2.5. (If father is living], what kind of things do you do with your father?
        - 2.6. Who does the ass-whuppin' in your family?

3. Moms
    - 3.0. Does your mom cook pork?
        - 3.1. What do you like best?
        - 3.2. Did she ever get really angry at you? What about? What did she say?

VII. Hip lexicon

1. I'm going to ask you the meaning of some words that some people say are hip:

    Booze
    Chicken
    Cool
    Blow the whistle
    Horse
    Blankout
    Put fire to his ass
    Put something on 'em
    Taste
    Punk
    Down
    Drop a dime
    Skizzack or skizag
    Burn
    Sting
    Peedee car
    Roller

VIII. Recreation.

1. Drinking
    - 1.0. What kind of taste do you like?
        - 1.1. Which taste gives you the best high?
        - 1.2. Did you ever get blasted? What went down?

2. Drugs
    - 2.0. Is a reefer dope?
    - 2.1. What makes some people junkies?

IX. Serious conversation

1. Information
    - 1.0. and 1.1. If you had the claps and you wanted to know what to do, who would you ask?
    - 1.2. If your girl missed her period, what would you do?
    - 1.3. Where to get a rubber, a scum-bag?

2. Sex
    - 2.0. Do you remember the first time you laid a girl? How old were you? Was it a girl who pulled your coat to sex?
        - 2.1. What happened the first time you fucked a girl? Did you ever pop a virgin?
        - 2.2. Did you ever worry about bustin' a chick open?
    - 3.0. Danger of death
        - 3.1. Were you ever in a bag where you were up tight and almost blew your life?
        - 3.2. What went down?
        - 3.3. How did you feel afterwards?
    - 4.0. Fate.
        - 4.1. A lot of times when cats are rapping about how they almost blew their life, they say, "Whatever's gonna happen is gonna happen." How do you feel about that?
        - 4.2. Did you ever sense that something was gonna happen, and then it did happen?
        - 4.3. Did you ever hit the numbers? [if no,] did you ever know anybody who hit?
    - 5.0. Lynching
        - 5.1. [Show picture of lynching.] I'd like you to look at this picture a moment.
        - 5.2. Do you think there's any truth in the idea that he wouldn't have been treated in this way if he hadn't done somethin'?
    - 6.0. Death
        - 6.1. What do you think happens to you after you croak?

X. School

1. Fair teachers
    - 1.0. A lot of kids tell me they have mean teachers. I had a mean teacher myself.
    - 1.1. Did you ever get hollered at for something you didn't do, or wasn't your fault?
    - 1.2. Is there a difference in the way that your mother hollers at you, and the way the teacher does? What kind of difference?

2. Goodness of teachers
    2.0. What makes a boss teacher?
        2.1. What makes a mean one?
        2.2. Did you ever have a good teacher? What was she like?

3. Smarts
    3.0. Who's the smartest kid in your bunch?
        3.1. Why do they think he's the smartest?
        3.2. Does he do good in school?
            3.21. [If not], why do you think he doesn't do good?

4. College
    3.0. Do you know any kids who have brothers and sisters in college?
        4.1. How would you get to college if you had no dough?
            4.11. [If athletics mentioned] what if you got very good marks?
            4.21. How good would your marks have to be to get into college free?

5. Grade
    5.0. What grade are you in now?

6. Homework
    6.0. Who helps you with your homework? Who tells you to do your homework?

XI. Aspirations.
1. Work
    1.0. What do you want to be when you grow up?
        1.1. And how many years of training after high school does a person need in order to become a ________?

2. School.
    2.0. How far do you want to go in school?
        2.1. What do you think are your chances of going that far?

3. Success.
    3.0. Who do you think has the best chance to get ahead for a kid in this neighborhood:
        a. A cat who'd very slick?
        b. A cat who slaves ?
        c. A cat that's lucky?
        d. A cat who vines good?
        3.1. When you say "get ahead," what are you thinking of?
        3.2. Which one of these would make the most money?

4. Money
    4.0. If you had all the dough in the world, and you could spend it on anything you wanted, what would you do with it?

5. Models
    5.0. Who would you most want to be like?
        5.1. Why do you want most to be like him [her]?
        [if answer is 'myself']
        5.2. What grown-up would you most want to be like?
        [if answer is a parent]
        5.3. What grown-up outside the family?

6. Important person
    6.0. Who was the most important person in your life?
        6.1. What is [was] she like?

XII. Questions of speech

1. What do you think of your own speech?
2. Did you ever try to learn different ways of rapping?
3. Which one of you cats can shoot the best game with a girl?
4. If a cop was gonna bust you and your friends, which one of you guys would be the best rapper? If a cop busted you, and you had about four reefers on you, how would you tell him they weren't yours?
5. Which one of you cats could do the best in school if he really wanted to?
6. Find out what the kids read.

APPENDIX B

Form letter sent to all adults drawn in sample of population in Cobra and Jet areas

[on letterhead of the]

U. S. SURVEY

Of Regional Customs

New York City Division

Columbia University

Dear Mr. _______

If your house was going to be re-built, would anyone ask you about it?

As you may have heard, there is a program for re-modeling older houses in New York City, instead of knocking them down and moving the tenants out. In the past, city planners have gone to work without asking the people themselves. But not everyone wants the same thing. Even inside New York City, different people have different customs, different ways of living.

It's our job to find out what the people themselves think, and get this information to those who are supposed to be planning for them--whether it's for housing, for schools, or for playgrounds.

We'd like to spend a few minutes with you, getting your ideas on these questions. And we would like to pay you for your time--a small sum, but our best way of showing appreciation for your help.

One of our representatives will call on you in the near future. Thank you for the help that you can give him.

Sincerely yours,
U. S. SURVEY OF REGIONAL CUSTOMS

William Labov
Director

WL/lv

APPENDIX B

Coupon included with letter to adult sample
in Jet and Cobra territories: red on yellow

IF you are selected for an interview by the U. S. SURVEY OF REGIONAL CUSTOMS, this coupon is worth

FIVE DOLLAR¯S

GIVE this coupon to the interviewer when the interview is finished, and he will be glad to give you $5.00 for your assistance.

U. S. SURVEY
of Regional Customs
William Labov, director

REFERENCES

Bach, Emmon (1967). "*Have* and *be* in English syntax", *Language* 43: 462-485.

Bailey, Beryl (1966). *Jamaican Creole Syntax*. Cambridge: Cambridge University Press.

Bloom, Lois (1968). "Language Development: Form and Function in Emerging Grammars". Unpublished Columbia University dissertation.

Bloch, Bernard (1948). "A Set of Postulates for Phonemic Analysis", *Language* 24:3-46.

Bloomfield, Leonard (1933). *Language*. New York: Henry Holt.

Chomsky, Noam (1965). *Aspects of the Theory of Syntax.* Cambridge, Mass.: M.I.T. Press.

_____________ (1964). "Comments for Project Literacy Meeting", *Project Literacy Reports No. 2*. Ithaca: Cornell University. Pp. 1-8.

Ervin-Tripp, Susan (1967). "Sociolinguistics". Working Paper No. 3, Language-Behavior Research Laboratory. Berkeley: University of California. Mimeographed.

Fasold, Ralph (1968). "Tense and the Form 'Be' in Black English". Mimeographed. Washington, D.C.: Center for Applied Linguistics.

Fischer, John L. (1958). "Social Influences on the Choice of a Linguistic Variant", *Word* 14: 47-56.

Fraser, C., U. Bellugi and R. Brown (1963). "Control of grammar in imitation, comprehension, and production", *Journal of Verbal Learning and Verbal Behavior* 2:121-135.

Fries, Charles C. and Kenneth Pike (1949. "Co-existent Phonemic Systems", *Language* 25:29-50.

Garvey, Catherine and Paul T. McFarlane (1968). "A Preliminary Study of Standard English Speech Patterns in the Baltimore City Public Schools". *Report No. 16*, Johns Hopkins University.

Glaser, William A. (ed.)(1964). *A Harlem Almanac*. New York: Bureau of Applied Social Research. Mimeographed.

Greene, Mary F. and Orletta Ryan (1965). *The School Children*. New York: Random House.

Grimshaw, Allen D. (1968). "Sociolinguistics". In Schramm, Wilbur, et al. (eds.) *Handbook of Communication*. New York: Rand McNally and Co.

Gumperz, John J. (1964). "Linguistic and Social Interaction in Two Communities". In Gumperz, J. and D. Hymes (eds.) *The Ethnography of Communication*. *American Anthropologist*, Vol. 66, No. 6, part 2. Pp. 137-153.

________________ (1967). "On the Linguistic Markers of Bilingual Communication". In John Macnamara (ed.) *Problems of Bilingualism*. *The Journal of Social Issues* 23. Pp. 48-57.

HARYOU-ACT (1964). *Youth in the Ghetto.* New York.

Hockett, Charles (1950). "Age-grading and Linguistic Continuity", *Language* 26:449-457.

House, Arthur S. (1961). "On Vowel Duration in English", *Journal of the Acoustical Society of America* 33:1174-1178.

Hymes, Dell (1962). "The Ethnography of Speaking", in *Anthropology and Human Behavior*. Washington, D.C.: The Anthropological Society of Washington. Pp. 13-53.

___________ (1967). "Models of the Interaction of Language and Social Setting", in John Macnamara (ed.) *Problems of Bilingualism*. *Journal of Social Issues* 23. Pp. 8-28.

Klima, Edward S. (1964). "Relatedness between grammatical systems". Language 40:1-20.

Labov, William (1963). "The Social Motivation of a Sound Change." *Word* 19:272-309.

______________ (1964a). "Phonological Correlates of Social Stratification," in J. Gumperz and D. Hymes (eds.) *The Ethnography of Communication*. *American Anthropologist* 66, Part 2: 164-176.

______________ (1965a). "On the Mechanism of Linguistic Change". *Georgetown University Monograph No. 18*, Languages and Linguistics. Washington, D.C. Pp. 91-114.

______________ (1965b). "Linguistic Research on the Non-Standard English of Negro Children", in A. Dore (ed.) *Problems and Practices in the New York City Schools*. New York: Society for Experimental Study of Education, Pp. 110-117.

__________ (1966a). The Social Stratification of English in New York City. Washington, D.C.: Center for Applied Linguistics.

__________ (1966b). "Hypercorrection by the Lower Middle Class as a Factor in Linguistic Change," In W. Bright, (ed.), Sociolinguistics. The Hague: Mouton.

__________ (1966c). "The Effect of Social Mobility on Linguistic Behavior". In Stanley Lieberson (ed.), Explorations in Sociolinguistics. Sociological Inquiry 36: 186-203.

__________ (1966d). "Some Sources of Reading Problems for Negro Speakers of Non-Standard English". In A. Frazier (ed.) New Directions in Elementary English. Champaign, Ill.: N.C.T.E. Pp. 140-167.

__________(1966e). "The Linguistic Variable as a Structural Unit", Washington Linguistics Review 3:4-22. ERIC ED010 871.

__________(1967). "Contraction, Deletion, and Inherent Variability of the English Copula". Paper given before Linguistic Society of America, Chicago. Mimeographed.

__________(1968a). "The Non-Standard Vernacular of the Negro Community: some practical suggestions". Paper given before Seminar in English and Language Arts, Philadelphia: Temple University. To appear in College English.

__________ (1968b). "Consonant Cluster Simplification and the Reading of the -ed Suffix". To appear in H. Levin (ed.) Basic Studies in Reading.

__________ and Paul Cohen (1967). "Systematic Relations of Standard and Non-standard Rules in the Grammars of Negro Speakers". Project Literacy Report No. 8. Ithaca: Cornell University. Pp. 66-84.

__________, Paul Cohen and Clarence Robins (1965). "A Preliminary Study of the Structure of English Used by Negro and Puerto Rican Speakers in New York City". Final Report, Cooperative Research Project No. 3091. Office of Education. ERIC: ED 010 688.

__________ and Clarence Robins (1968). "A Note on the Relation of Peer Group Status to Reading Failure", to appear in Teachers College Record.

__________ and Joshua Waletzky (1967). "Narrative Analysis: Oral Versions of Personal Experience". In Essays on the Verbal and Visual Arts. Seattle: University of Washington Press.

Lambert, Wallace (1967). "A Social Psychology of Bilingualism". In John Macnamara, (ed.) *Problems of Bilingualism*. *The Journal of Social Issues* 23:2. Pp. 91-109.

Levine, Lewis and Harry J. Crockett Jr. (1966). "Speech Variation in a Piedmont Community: Postvocalic r". *Sociological Inquiry* 36: 186-203.

Loban. Walter (1966). *Language Ability*: Grades Seven, Eight and Nine. Washington: Office of Education. Cooperative Research Monograph No. 18.

Loflin, Marvin (1967). "On the Structure of the Verb in a Dialect of American Negro English". Washington: Center for Applied Linguistics. Mimeographed.

McDavid, Raven I. Jr. and William M. Austin (1966). "Communication Barriers to the Culturally Deprived". Cooperative Research Project Final Report, No. 2107. Washington: Office of Education.

Miller, Walter B. (1958). "Lower Class Culture as a Generating Milieu of Juvenile Delinquency", *The Journal of Social Issues* 14:5-19.

Miller, George and S. Isard (1963). "Some perceptual consequences of linguistic rules". *Journal of Verbal Learning and Verbal Behavior* 2:217-228.

Moynihan, Daniel (1965). *The Negro Family*: the case for National Action. Washington: Office of Policy Planning and Research, U.S. Department of Labor.

Rosenbaum, Peter (1967). English Grammar II. Yorktown Heights: I.B.M. Mimeographed.

Shuy, Roger (1967). "Linguistic Correlates of Social Stratification in Detroit Speech". Final Report, Cooperative Research Project No. 6-1347. East Lansing: Michigan State University.

Stewart, William A. (1964). "Non-Standard Speech and the Teaching of English". Washington D.C.: Center for Applied Linguistics.

________________ (1966). "Social Dialect", *Research Planning Conference on Language Development in Disadvantaged Children*. New York: Yeshiva University.

Sturtevant, Edgar.(1947). *An Introduction to Linguistic Science*. New Haven: Yale University Press.

Tucker, G. Richard and Wallace E.(1967). White and Negro Listeners' Reactions to Various American-English Dialects". Mimeographed.

Solomon, Denis (1966). "The System of Predication in the Speech of Trinidad: A Quantitative Study of Decreolization". Unpublished Columbia University Master's Essay.

Stewart, William A. (1967). "Sociolinguistic Factors in The History of American Negro Dialects". The Florida FL Reporter, Vol. 5, No. 2.

__________________. (1968). "Continuity and Change in American Negro Dialects". The Florida FL Reporter, Vol. 6, No. 2.

Turner, Lorenzo (1949). Africanisms in the Gullah Dialect. Chicago: University of Chicago Press.

Weinreich, Uriel, Marvin Herzog and William Labov (1968). "Empirical Foundations for a Theory of Language Change". In W. Lehmann (ed.) Proceedings of the Texas Conference on Historical Linguistics.

Yablonsky, Lewis (1963). The Violent Gang. New York: MacMillan.